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AUTOCAMPING





Enjoying an Afternoon of It



AUROCAMPING

By

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Autocamping Editor of *Outdoor Life*; Vacation With Your Automobile Editor, The New York *Evening Post* Outing Page; Motor Camping Contributor Leading Outdoor Press

ILLUSTRATIONS FROM
PHOTOGRAPHS BY THE AUTHOR



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To
GLORIA BESS BRIMMER
Likely the Youngest of All Autocampers,
And Her Sunny Smile of Six Months,
The Inspiration of this Book

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AUTOCAMPING

CHAPTER I

Autocamping Independence

THERE is a lure in autocamping that outlures almost every other call of the red gods and yearly seizes upon more and more of our American families and outdoorsmen, inviting them to an adventure in independence. For, after all, the fascination and growing popularity of autocamping harks back over the generations and ages to an inborn urge that breaks us away from cult and convention, from aping etiquette and artificial antics, from traffic cops and the tedium of supercivilized toil, and rushes us for a vacation into the realm of freedom, liberty, independence—into the elbow-room of the out-of-doors.

Autocamping is not a transient pastime or a by-product of the world war, but a vocational institution that has come to stay, an outgrowth of natural forces. Nor is autocamping a mere game, pastime, or frolic, and most certainly it is not a luxury. It is a free and independent state of relaxing weary muscles, of restoring nerve energy, of charging the storage battery of bodily energy, of cutting the cobwebs mentally, and of clearing the fog spiritually.

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Autocamping is a product of modern civilization, an institution necessary for the pursuit of health and happiness.

Two forces, one positive and the other negative, have united to create this modern free and independent state of autocamping, just as all permanent and worthwhile innovations have been ushered into the drama of human progress.

Among the positive forces that have brought on the widespread exodus of autocamping may be mentioned our typical, inherent American love of things primeval. We all like to turn the hands of the clock of time back to "those good old days," to "those days of real sport," and we love to do as grand-dad did. We love the hardy traits and the depth of character and the simple life, because coursing through our arteries is the blood of the pioneer. We all are unconscious gypsies. We are victims of the *wanderlust*. And the advent of the mighty automotive industry has put at our disposal the gasoline caravan, the land yacht, the automobile.

Not to be forgotten are some of the negative causes of this new era of autocamping, which contradicted the natural direction of civilization wave movements, by coming from the West to the East; and there is something in these negative causes of motor camping that smells of the air of '76. Indeed, autocamping is a free and independent state formed on the fundamental principle that all men are created equal and that they should enjoy the Gifts of Nature unrestricted in the bounds of reason. Autocamping is a protest against "taxation without

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representation" and sundry evils. Haughty Pullman cars and stifling coaches, gouging hotels and insolent waiters, excessive railroad taxes and overbearing baggagemen, commercialized vacation places, monopoly of the exceedingly rich over the best spots, millions of guarded orders "No Trespassing Under Penalty of the Law," these are just a few of the evils that have given us motor camping.

Apparently many of the older forms of outdoor vacationing in God's Big Outdoors are denied forever. In most states real big game shooting must be done with a camera and the quarry is pretty likely to stand behind the high tension wire of a park fence. Moose have vanished from all New York and New England with the exception of Maine. Even Canada, with all her supposed abundance of wild game, permits, in many provinces, just two little weeks of moose or deer hunting in a season. Elk and buffalo that dotted the Ohio valley are gone forever. The wild pigeon that clouded the sky is extinct, along with the lust to kill that slaughtered it. Even the grizzly has been hunted to death in a big section of his habitat, and the black bear in half of his. The deer, holding its own better than any other wild game in the "big game" class, is now hunted over shorter and shorter seasons or legal barriers put up to protect entirely. Settlement of the western game countries has been so thorough that the ranges of winter migrant game are largely barbed-wired and the elk, mountain sheep, antelope, and the others must starve or

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feed at the haystacks on the ranches. Streams that were infested with game fish in our grandfather's day, so that fish was often the staple and most abundant food on the table, are now dried to summer aridity because of deforestation, or else the remaining pools are completely denuded.

This is not blue-law talk, nor can we forget the wonderful work of conservation commissions and the restocking of sportsmens' organizations, which in time may bring back the game and fish to a certain degree. But the fact remains that often our best hunting grounds, and many times the very streams that state laws and state moneyed commissions have restocked, are promptly monopolized by the overly rich. The Catskill Mountains are pitiable memorials to this wholesale practice, and other sections suffer likewise. The banks of whole miles of trout streams and the shores of millions of watered lake acres teeming with fishes, as well as virgin and cut-over timbered areas, are shut up by the "Thou Shalt Not Pass" sign of the man who owns the land but can never be the owner of the wild life in stream and forest, although he can keep the whole world away from appropriating it. Naturally this condition is far worse in the East than in the West, but some day hardly any section may be exempt, except what is preserved in state and National Parks.

There is only one place to spend your vacation now. This one place, thank God, no one multimillionaire can monopolize. This one place is the Highway.

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The autocamper and his family may go where they choose, may stop where and when they like, may ask odds of no man, because they are on the wide domain of the free and independent state of autocamping—the Roadside. You may be denied actual hiking over the hills and splashing in the streams, but they can't push you off that wide belt of highway running into every nook and corner of the country, and so you may camp and enjoy and exhilarate just about anywhere that fancy dictates.

Autocamping is something akin to Middle Age Feudalism, but with modern improvements. The feudal lord lived in his castle home, and on the manor about were produced absolutely everything that was necessary for his needs and his comforts. His willing serfs fled eagerly to the protection offered to them on the manor and cultivated the crops or did the tasks necessary to make the feudal fields free and independent of the rest of the world. There was the cobbler, the miller, the blacksmith, the priest, the jester or troubadour; there were the spinners and weavers, the soldiers and policemen, and the skilled helpers of all kinds. The feudal manor was a little world in itself.

Autocamping is just like that. The car or the trailer is M'Lord Autocamper's castle. Hundreds of helpers supply him with necessities; from tents, and beds, and refrigerator baskets, and batteryless flash lamps to even touring phonographs, and fishing tackle, and hunting equipment, and the hundreds of other things that will aid in the pursuit of life in the outdoors,

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liberty along the highway, and the following of healthful happiness. These are the willing serving men of M'Lord Autocamper. And the whole wide world is his manor! The autocamper, equipped properly, is a petty feudal monarch in a horizon that is all his own. On his rubber-shod castle grounds, with all the *lares et penates* of his home hearth carried with him, he may set up roadside housekeeping anywhere on God's green footstool, free and independent of the whole wide world.

Be it a week-end trip, or a whole week's outing, or a full month on the road, or five complete months of roadside living, all of which adventures the author and his complete family have enjoyed, down to six-months'-old Miss Gloria Bess—the thrill of autocamping is the same.

In the first place it must be understood that autocamping is far from "roughing it" in the open. In late spring, summer, and early fall, and indeed in less moderate weather, the whole family may live in a roadside apartment as cozily and comfortably as at home. There are dozens of snug tents, many of them made solely and purposely for autocamping; there are beds that are fully as comfortable and even more sleepable than your bedstead at home, and indeed I know several campers who have found the air bed so sensible and comfortable that they have gone to using them at home the year round; and then there are stoves of all kinds, and systems of camp illumination, and folding furniture outfits, and clever devices for keeping perishable foods and drinks ice cold in sand

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desert temperature, and clothing that will make your trip comfortable, and a hundred other things to help you be real free and independent. As years go by it is my personal finding that even hunters and explorers, from the highlands of the South to the frozen tundras of the North, are not roughing it with glee any more than we are driving two-cylinder motor cars now that we have better. Indeed modern camping is almost "softing it."

It is not the purpose of this book to be dogmatic about equipment and how to autocamp efficiently and successfully. It would be foolish for the author to do more than blaze trails for you to follow. A few years ago, when autocamping was a youngster and cars packed for camping, freaks to be gaped at, I asked a pioneer motor camper for advice. What he said will be my advice to you: "I can't tell you much about autocamping because that would take away the element of adventure."

Autocamping with me is more than a hobby. It is my summer vacation and the whole family takes it seriously. It is in one, both vocation and avocation for vacationing. A great many articles of equipment have been personally tested and used and naturally more specific information can be given upon the intrinsic worth of this equipment. However, outfitting is a matter of personal judgement and the autocamper must consider his own peculiar needs and conditions and the idiosyncrasies of the members of his party. That is part of the "personal adventure." Many of the articles and equipments will be

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mentioned by their trade names and most of them will be found pictured in actual use in the author's camps, because I trust the truth told about any commodity is worth more than the little free advertising given. Many of the articles are new and intricate at first glance to the tyro, hence specific descriptions and accounts of actual performances are simply my blazes cut along the autocamper's trail. Naturally we all sit down carefully and beat our heads over catalogues of outdoor equipment, and we believe we select the *best* for the *purpose*. And the needs of the autocamper in every climate and clime for various personal considerations are unlike and vast. Hence the problem of outfitting efficiently is one in calculus and is part of the joy of camping. Every trip we learn something and discard some fool thing we have been persisting in doing. But it is easy to advise on absolute necessities and give general instructions and helpful advice. This the author fearlessly sets out to do.

The most fastidious autocamping outfit pays for itself. Indeed the laws of economics have driven most of us autocamping. A few years ago, when we vacationed by steam train, or later when we motored from hotel to hotel along the appointed highway, running on almost train-like schedule in order that we might go all through the orgy of unpacking wrinkled clothing and getting through the toilet in time for dinner, the cost of a family trip was fifteen dollars and up per day: mostly up. Autocamping saves us at least ten or twelve dollars a day. The outfit not

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only has paid for itself in one season but comes up smiling each season to repay compound principal to us. The health consideration, contrasted with much-breathed train air and mingling in strange hotel lobbies with others, puts autocamping for vacation purposes, with its nights and days in the open air, far ahead of any other form of land travel.

A few years ago we heard the scoff of disdain heaped upon autocamping as the pastime of the man of small means, but today as many are Pierce-Arrowing as Fording our highways and hobnobbing our roadsides. And there is a great free masonry and democratic fraternity in autocamping. There you meet men and women just as the Creator made them, not as man-made conventional veneer has re-made them. From the Tin Can Tourist to the Travel Club of America member with his system of autocamping accident insurance, there is the true American heart in the breast of the motor camper.

CHAPTER II

Your Roadside Home, the Tent

IN NINE cases out of ten, when not planning to autocamp with a trailer, the very first adventure is deciding upon a tent. This chapter might well be divided into two parts: one dealing with the many good tents not primarily made for autocamping but that may be converted to the new faith, the other part dealing with the true autotent. Other chapters will be devoted to the tent-bed combination and to the trailer.

A great favorite among campers of all classes in the past has been canvas, or cotton duck, generally water-proofed, at least the roof. There is growing into popular favor for motorcamping a material much lighter than canvas, known as balloon silk. While this is a misnomer, since it is not silk but a closely woven fabric subjected to a most exacting wet-proofing, still none of the virtue is taken away by the fact that not a thread of silk comes near its fabrication. There are likewise other excellent patent tenting materials, such as airplane cloth and silkette. Each kind of tent cloth has its special merits. Canvas is the old stand-by, being strong and substantial; but where light weight is the prime essential, then balloon silk, or some other patent

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tenting well built to beat the law of gravity, is more popular.

Canvas itself comes in various weights and textures, ranging in weight from the light 8-ounce, on up to 10- and 12-ounce material—the weight most frequently used in autotents—and may be had in almost any weight. Subjected to a successful wet-proofing process, the 8- or 10-ounce material makes the lightest possible canvas tent that is at the same time secure in damp weather. Canvas, frequently called cotton duck, is really woven with several degrees of filling also, there being single fill, double, triple, quadruple, and so on. No matter what the weight of the material, your canvas should be double filled at least. Likely the double fill is the most successful and popular of all. The very best canvas tenting is the double fill army duck.

Ordinary tent canvas comes in 29-inch width, but sometimes 36-inch material will be offered the tourist. One should remember that the wider material is about a third lighter than the regular width when a yard length of each is listed to weigh 8 ounces or 10 ounces, as the case may be. That is, a tent of 10-ounce duck made from 36-inch material will be thinner and lighter than a tent of 10-ounce canvas made from regular 29-inch duck. Hence you should make sure that the tent offered you is 29-inch, else the greater width will really put a tent into your hands that is a third to a quarter less efficient than what you thought you were buying.

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You can tell plain cotton duck from the wet-proofed duck of any weight or quality by a simple test. The plain duck will wet through when the underside of a tent roof is touched with the finger while rain is falling because of capillary attraction, and once started this leak will keep on letting water into your tent as long as rain falls. With water-proofed canvas you may poke your finger against the roof all you please and it will not start leaking.

Some tent makers maintain that you cannot successfully dye canvas and water-proof it at the same time; while others as stoutly claim that this very feat is easily possible. Certain it is that of late years a great many colored cotton duck tents have come upon the market and apparently give excellent service. Likely a majority of canvas tents today are white, however they show soil so easily and make your camp so conspicuous to the eye that other colors are sure to become more popular. Practically all tenting material, from canvas to balloon silk, may be had in forest green, leaf brown or khaki, or white.

Water-proofing of tent material is done in many ways by experts, but a poor cloth cannot be made into a good tent simply by expert wet-proofing. You must start with the best grade of cloth and then treat it correctly. Sometimes the tenting is cravenetted before being woven into the cloth, again it may be filled, after it has been woven, with wax or paraffin either surrounding the fibres or ironed to completely fill the interstices between the fibres. Another process

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treats the fibres with wax and weaves them with the spaces between left open, not sufficient room remaining to permit a rain drop to enter. Another is accomplished by using a cupro-ammonium solution and then lightly waxing the cloth. It is not necessary by any means for the autocamper to know and recognize the details of tent cloth water-proofing, but a general knowledge and reliance on a reliable manufacturer are important.

The most simple tent that can be utilized for autocamping is of the lean-to type, which is rarely more than a sheet of tenting material attached along the top of the car for its ridge, the lower edge staked away from the car a few feet. A pair of ponchos or a tarpaulin may be made to serve in this manner. For warm weather, short trips, and insectless country the simple lean-to without end walls may serve very well; but it is not a practical shelter by any means for real motorcamping. The lean-to tents with the triangular end walls are much better than the mere roof of the lean-to made by a square of canvas.

The lean-to shelter makes a fine emergency covering for preparing the noon meal and frequently the author has stopped beside a fence, or in a field, and used a pair of ponchos buttoned together to make an emergency tent under which to prepare the dinner in rainy weather. A poncho from car top to the posts of a fence 5 or 6 feet away has frequently made a better place to use our gasoline or acetylene gas stove for getting the hot meal than the simple lean-to

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arrangement, because there is more head room. It is not always easy to find the fence that will cooperate with your car in supporting the roof of this emergency tent.

There is a type of lean-to tent with end walls and a fly that makes a fine autotent. This is the Burch Shelter Tent and the fly will extend over your car top, or may be supported by two poles independently of the automobile. There is no front to this Shelter tent, which, since it comes against the side of your auto anyhow, hardly needs one. It may be had in 10 different sizes to fit your size car body, ranging from 7x7 to 10x16 feet floor space, the height of the ridge in all cases being 7 feet. It may be had in 8-, 10-, or 12-ounce army duck water-proofed and is the most simple and efficient tent that may be used for autocamping, lacking only head room.

The tarpaulin tent, 10x12 feet, may be erected beside your car, but independently of it, in the form of a pyramid, with floor space 7x7 and plenty of head room. The tarp may be used also as a lean-to attached to your automobile for an emergency shelter, or may be utilized to cover over duffle packed in the tonneau when touring. The tarpaulin will always be a favorite with many because of its versatility. The Burch Pueblo Tarp tent has long been used by the cowboy for a bed sheet as well as a tent shelter, and if you prefer this style of tent there is no better for autocamping. It may be had in 10- or 12-ounce duck, as well as Duplex storm-proof cloth and Sportsman's tent cloth.

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At best the tarp tent will accommodate only two. The Burch Herder, Miner, Stockman, and round or Sibley tents are all of the general tarpaulin tent construction and come in various sizes. The Sibley or round tent, and the Herder and Miner tents, may all be had with walls or without walls as desired.

There are various A-shape, or wedge-shape, tents that may be put into autocamping service. The well-known Boy Scout tent, especially the New York State model, is excellent. The regular size is 5x7 by 4 feet high, and for motor-camping one should select the scout master's size, which is $2\frac{1}{2}$ feet higher. Both sizes of scout tents may be had with sewed-in floors.

The Burch A-tents or Hunters tents range from 5x7 with 6-foot ridges to 10x12 with $7\frac{1}{2}$ -foot ridges. The Hunters Tent may be had with or without a wall, that is, it may be ordered in true A-shape or in wall shape. The weight varies, 8- to 14-ounce duck. The Compac tent is a form of A-shape of peculiar style and comes in balloon silk with sewed-in floor, the roof sloping two-ways and acting for side walls as well. The Burch Artists tent is similar to the Compac and comes in canvas. Both are rather doubtful for use as first rate autotents. They will at best accommodate only two.

One of the most frequently used tents for all kinds of camping is the old wall tent. This is popular with many because it is the usual form of cloth shelter that most naturally comes to mind when a tent is mentioned, and also because it follows the general shape of the frame and

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gable house, hence is popular when the family goes autocamping. There are a great many styles of common wall tents in all kinds of weights and materials, hence mention only seems sufficient. The Burch company does build an improved family wall tent with porch fly, as well as a hip-roof wall tent, and various other unique styles, several of which have canvas partitions inside and make veritable tent homes for the whole family. One of them has three bedrooms 7x7 feet, a kitchen of the same dimensions, and a living room 10x14 feet. Such a tent would be too heavy and bulky for short camps, but would be ideal for long stops in municipal autocamping parks or elsewhere. The wall tents may be had from baby size to giants, with or without floors, with or without flies, and in any color desired.

A style of wall tent most popular with autocampers is the Wenzel poleless tent. This is because it does not require carting along ridge poles, common to the wall tent. On the Wenzel tent a rope runs from the ridge to the adjustable lever on the top of each upright and is readily adjusted to draw up tightly the flexible ridge of the tent.

Sometimes the wall tent is split in half, lengthwise along the ridge, and thus forms a fine autotent. Of this type the Amazon is most worthwhile, since it has a porch fly that may be extended over the car. Likewise it has a front wall and may be used independently of your auto by supporting the fly with two poles. Frequently two Amazon, or any style of half-

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wall, tents are used in motorcamping, one tent on each side. There are nine sizes of the Amazon tent, from 7x10 to 10x20, all with 3-foot rear walls and the front ridges ranging from 7 to 8 feet high. They may be had in 8-, 10-, or 12-ounce canvas.

The Baker tent might be used, as the Amazon is, attached to your car, but it has no front wall and is something of the shape of a shed with porch extension or fly. The Baker may be pitched independently of the automobile, using three poles in the form of a tripod, one leg forming the ridge and the others holding the front. Jointed poles outside give more room inside this style of tent and it is by all means a most simple affair to pitch. It has a sewed-in floor and a screened window. The Baker Trail Tents come in five sizes.

There are several other tents that might be considered possible for autocamping. The Foresters Tent, designed by the dean of tenters, Warren Miller, especially for use on the beach, might serve for an ideal motor tent in sand-storm desert country. The Indian tepee also might be used for autocamping. There are various tents, screened or lined with Bobbinet to make them insect-proof, which are also worth consideration for special excursions into mosquito country. Even the old Cruisers Tent might be made to serve the autocamper very well.

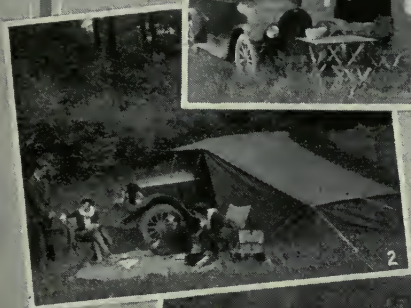
Now let us consider the true autotent.

This is a style of tent recently manufactured purely to accommodate autocampers with the

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greatest amount of room and comfort and at the same time prove convenient to carry. The best kind of autotent should give all the head and floor room possible, and the most satisfactory provide the same amount of head and floor room. Some will coöperate with your car or not as you choose. There should be at least one screened window for ventilation and the autotent should be a real "one man" affair, that is, permit pitching by a single individual. Whether or not there should be a floor in the ideal autotent is a question, and personally the author does not favor it unless it is used only in that part of the tent which will be slept in. Walking about on the canvas floor, building a fire in your tent stove on it, and otherwise mutilating it will prove disappointing, and you are merely taking more weight than necessary. The sleeping tent with sewed-in floor and screened windows may be made absolutely insect-proof, and a floor is recommended.

After trying various styles of autotents my family have been very happy to discover and use the Burch Tourist Auto Tent. At first glance the shape and appearance of this tent will seem peculiar. This is because the roof slopes both ways, that is, from front to rear and at the same time from ridge to eaves. This makes the water shed off in two ways, rendering it as efficient in this respect as a tent with a much steeper pitch of the roof. Also, since it has this peculiar double-pitched roof, there is head room everywhere in it, a unique feature and a happy one when you come to live in a



1 The Gypsy Autotent
2 The Way-Side Outing Outfit

3 A pair of Amazon Motor Tents
4 The Burch Tourist Auto Tent

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tent by the month. Furthermore, the Tourist Auto Tent is a true "one man" affair, easily pitched by one person in five minutes, and it is most compact when rolled for carrying. Its tent poles unjoint, and they have carried under the rear seat of our car for weeks at a time.

The No. 1 Tourist Auto Tent is $8\frac{1}{2} \times 10$ and weighs 32 pounds. The ridge at the front—what might be called the peak—is 8 feet high, and the rear peak is 6 feet. There is a large extension porch fly that may be thrown over the car top or stretched for a porch on two poles. The No. 2 size Tourist Auto Tent is for large-sized cars, being 8×13 feet, weighing 41 pounds, and being the same in height as the No. 1. Both sizes may be had with or without floors. This tent is made from a light double fill, finely woven army duck well water-proofed.

While the actual floor space inside the Tourist Auto Tent we have used is $8\frac{1}{2} \times 10$ feet on the car we have driven, the family has enjoyed a roadside home considerably larger than this with the porch fly drawn over the car top and the front walls of the tent swung out. These front curtains of the tent are fitted with snaps that attach to rings along the edges of the fly and with tapes that tie to your car, front and rear. With the outer side curtains on the car, and the front of the tent swung out and snapped to the fly on both sides, you have a room that is about double the actual floor space of the tent, and it is all head room, excepting the car room itself. Inside this tent we have found plenty of room for two double beds, a tent stove, chairs,

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table, and the necessary things to make it Camp Home. There is a screened and curtained window at the rear and a wall pocket with flaps each side of the window in which toilet articles are carried, and left safely there when the tent is taken down and rolled up.

The first operation in pitching the Tourist Auto Tent is to throw the fly over the car top and attach the three ropes at the outer edge of the fly to the top braces of your auto. Then set in the peak pole and put out the two front guys. Next loosely guy the rear ridge rope and then set in the rear pole. After which the four corner poles are set into place and the guy ropes pulled taut. Your car may be set closely against the front of this tent, and then the extension fly will cover the open side of your auto. We prefer to put on the side curtains and pitch the tent as far from the car as possible, thus giving much more room—an important consideration. The door of the Burch tent is at the side, hence one does not need to unbuckle the curtains attached to the automobile to get in and out. The space under the running board is all that remains open, when the tent is pitched and the curtains are on the car, and this space will be found open on any tent when the front wall is thrown apart. To keep out the draft of night air we use blankets or ponchos hung over the wheels and on the running board, and held in place by articles of equipment set against them. In this tent so arranged you are as cozy as in a cottage.

The Metropolitan Utility Autotent is an

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excellent cloth home for the roadside hobo and his family. It is a tent that has unique extending eaves, sewed-in floor cloth, opens the entire length, and can be erected with or without poles, or may be set up independently of your car and form a sort of garage in and out of which your car may be driven. The windows of this tent are screened, curtained, and fasten with indestructible fasteners. The cloth from which this tent is made is a very closely woven material in dead-grass color, all wearing parts reënforced and double-stitched seams throughout make it very durable. The jointed tent poles are made of pine. Steel pins come with the outfit. The floor space of the Utility Tent is 7 x 8½ feet, height at front is 7½, and at rear 2½ feet. The weight is 26 pounds.

The Marquee Autotent is of the semi-pyramid shape with a center pole, and a flap extending to the top of the car. The tent is 8x8 feet on the ground and 8½ feet high. There is a window at the rear and a detachable door with a window in front. When detached the door may be hung along the flap between the car and tent on one side. The Compac Auto Hobo tent is very similar.

The Stoll Perfection Tourist Tent is 8x9 feet with a flap that attaches to the top of the car, or it may be erected independently. It somewhat resembles the Marquee and the Compac, boasting only one pointed pole and accommodating four people. The front is not detachable. It has two screened windows and a sod cloth, not a floor. It weighs 28 pounds.



1 The Schilling Autotent 2 The Brooks Umbrella Tent
3 The Des Moines Tour Tent

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Another autotent of the truncated cone type is the Brooks Square Umbrella autocamping shelter. This is made in three sizes with plenty of head room, floor space, and an awning stretching to the automobile top, or to poles independently of the car. It has a center pole and boasts of no guys. The Brooks tent is made from 10-ounce duck, folds very compactly, and has a unique door.

The Weikert Auto Tent is of the wall variety covering the car with its awning or fly. It may be had in various sizes and used independently of your auto if you like.

The A. B. C. balloon silk autotent, not to be confused with the tent-bed combinations featured by this company and considered in another chapter, is a fine autotent with sewed-in floor, water-proof and bug-proof. The small-size A. B. C. autotent weighs but $15\frac{1}{2}$ pounds, being 5x7 feet, and of the half-wall tent type, or shed type. The next size is 7x7 and weighs 18 pounds, while the largest is 7x10 feet and weighs but 22 pounds. The two smaller sizes of this A. B. C. Casey autotent have one room each, while the larger size boasts two rooms. The 7-foot dimension of the Casey tent is in each case the distance of the rear wall from your auto. No poles are required with this tent and it rolls most compactly into a bundle but 2 feet long and a few inches in diameter.

The Field Autokamp Tent is of the half-wall type, equipped with two rooms, and having the fly over the top of the automobile. It is made from 8-ounce duck, double fill and water-

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proofed. This tent will accommodate four people.

The Des Moines Tour-Tent is a half-wall tent that entirely covers the top of your car and the front and rear, so that one passing on the outside might not believe that he was near an automobile. The Burch Ideal Camping Tent covers the whole car also and in this respect the two are similar. This feature will be appreciated by many who sleep in the tonneau car beds, as it affords protection for your automobile as well as your camping outfit, for everything is safely stowed in the car and protected from rain. The Burch Slip-On Covers may be used to make almost any autotent completely cover the car. Personally there seems little use to me in housing the car in a tent garage. But I have autocamping friends who maintain they will not camp unless they can take the car right into camp with them.

A tent with a steel frame, folding to 5 feet 3 inches by 10 inches, weighing 60 pounds, with two rooms—one 7x7 and the other 5x7 feet—and that is most unique in shape is the Gypsy autotent. The main room is a high wall tent with peak roof, and the sleeping room is a shed leaning against one side of the living room. The frame is seamless bicycle tubing, all joints being aluminum. There are four guy ropes. As many as four sleeping rooms might be placed about the central living room on the Gypsy arrangement and the steel frame holds the canvas tightly everywhere. There is 6-foot head room in the main room.

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The Boston Automobile Tent follows the usual shed style with fly over car, requiring no tent poles, having two roll-up doors, curtained and screened windows, and water-proof floor cloth. There are two sizes offered: one with base 7 feet square, back wall 3 feet, and front 7 feet, while the other offers a base $7 \times 9\frac{1}{3}$ feet, with other dimensions the same.

A very similar tent is the Moto-Tent, with khaki-colored roof and white sidewalls, the roof of 8-ounce duck, water-proofed with the well-known Preservo. This tent is also offered in two sizes, one with base 7 feet square, and the other 7×10 feet. It rolls to a bundle about 10×24 inches and the weight is about 25 pounds.

The Carpenter Auto Tent is also a shed type with fly, which may be set up independently of the car if desired. It is of khaki-colored duck, and has folding poles and pins. There is a floor cloth and the doors and windows are screened. Two sizes are offered: one 7 feet square on the ground, and the other 7×9 feet. Packed, this tent is about 12×48 inches and weighs 30 pounds.

Still another similar autotent is the Badger, ground size 82 inches square, 76 inches high at front, and 3 feet at back. The fly, which throws over the car top, is 7×8 feet, and large enough to cover the opposite side of the automobile. The tent is of army duck, with sewed-in floor cloth of water-proof twill. Olive drab is the color. This tent folds to 11×30 inches, and weighs 22 pounds.

The Chittim Autotent is a gable-roofed affair,

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appearing something like a wall tent without obvious support, which is afforded by a rather rigid framework. Within this frame two beds are supported, one above the other. The whole outfit folds compactly enough to ride readily on your running board.

The Auto Hobo Tent is in the square umbrella shape with awning to stretch over car or attach to two poles to form a sort of canvas portico. This tent comes in three sizes and is made of Mode Waterproof material. The 8-foot center pole is hinged to form a folded length of only 32 inches. This tent rolls to 7 by 32 inches in the smallest size. The sizes offered are 7-foot-square base, 10-foot-square, or 12-foot-square.

The Way-Side Tents follow the design of the regular Amazon. A unique feature of this make of tent is that each autocamper may specify exactly his wishes about ventilators, floor cloths, curtains, and extra poles. He selects his Ideal Way-Side Tent, for instance, and tells the maker where he wishes windows, and the details of construction. The base model tent is 6 feet 8 inches wide by 8 feet long, the front height being 6 feet 6 inches, while the rear is 2 feet 6 inches. The weight is 20 pounds.

The Outodoor Touring Tent is a shed type 7 feet square, with heavy floor cloth, two screened and curtained windows, and awning. The Outodoor Portable Cottage, while not a true autotent, still is used when more or less permanent camps will be established. It is a screened canvas summer cottage supported by a

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light frame. The Close-To-Nature Portable Cottages are very similar, as are several others.

The Rietschel Touring Outfits are really portable canvas cottages especially built for the autocamper. Although weighing 150 pounds, the canvas cottage packs to surprisingly small space so that it may be carried on the running board. The floor space is 6 feet 8 inches by 9 feet, and this outfit of course sets up independently of the car. The carrying cabinet becomes a camp table 36x55 inches. A bed for two and benches for six people attach to the frame, although the table and benches give way to another bed if desired. Packed in its running board cabinet this outfit is 55 inches long, 21 inches high, and 10 inches wide.

There are undoubtedly other excellent autotents, which space prohibits describing, but the variations in details of those set forth in this chapter ought to give the reader a fair idea of tent possibilities. Let it here be said emphatically that great care should be exercised in selecting the right tent. It is safe to estimate nine out of ten tents as unfit for real protection when you are caught in a heavy downpour of rain. In the end the best is by far the "cheapest" and the safest. This point cannot be made too emphatic.

The autocamper must remember that tents should be selected for personal requirements. This takes into consideration many things; numbers in party, ages, sexes, families or mixed individuals, length of trip, locality, climate, season of year, purpose of trip, previous ex-

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perience in camping or autocamping, the equipment that will be used with the tent home, and a hundred and one elements of the personal equation that cannot be decided offhand. One thing is sure, there is no all-round tent that will accommodate every party and suit every condition, but some come very near being ideal autotents.

The matter of tent selection is for your best judgement and I hope the foregoing will act as a suggestive guide. Metal tent pins are the only ones worth carrying on long trips, as the hardwood pin soon batters to nothing under the blows of your camp ax in setting the pin for your guy rope. You can tell a veteran camper as far as you can see his tent pins, not only by the kind, but more by the *slant*. The best way to set a pin is leaning toward the tent, as it pulls out less easily, common opinion to the contrary, than when leaning away from the tent. The reason for this is obvious, for the pin staked so that it points away from the tent is pulled over by the tension of the guy rope in wind or rain and so loosened. Remember that no rope has ever been made that would not shrink when wet and so loosen the guys when the floods descend, or else the pulled-out tent pins will let your tent sag or partly fall in during the night. When unpacking your tent for the first time, watch to see how it is folded and rolled, as the makers know about this best and you will do well to follow the example they set for you when you want to roll it back up. Sometimes you may travel through country

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where poles for your tent may be cut each afternoon or when you are making camp, and in this case the ones which come with the outfit might just as well remain at home and thus lighten your load and give that much more room to other equipment. There are several Toilet Tents made purposely for the auto-camper and well worth consideration if no other arrangements are convenient.

CHAPTER III

Sleeping in Hades or Elysium, the Bed

THE crux, the acid test, of the success of your autocamping trip will not come between the golden hours of sunrise and sunset. You will be given your "third degree" at night. During the day any little disagreeable details that come up, just as they will come up in spite of the best regulated families, are quickly merged into the many interesting things that come along to any one of the five senses on a touring trip through lovely country. But at night you are tired, it is dark, and if you can't sleep your autocamping adventure is a miserable failure. Your bed will make the night either Hades or Elysium.

Not long after we were married, the Missus wanted to camp the Adirondacks with me and go light, which we did most successfully, but I shall never forget our first night and the author almost ruined his matrimonial partnership, to say nothing of that particular outing. We were sleeping in blankets on a bed of balsam boughs. The first day we tried to go too far, for we wanted to reach a certain almost unvisited and little known lake five miles from a dirt highway seldom frequented. The result was that we arrived barely in time to get up our simple lean-

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to tent and make a hasty supper when it grew dark and stormy.

Having had little time to find balsam or spruce boughs with which to make our bed, we tried to sleep on uneven ground that, as soon as we ought to have slept, seemed to be a miniature of the bad lands of South Dakota. In vain we moved and rolled and tried to sleep. Beavers cut big trees that fell with startling booms into the water; night birds screeched; wildcats screamed; deer came thump-thumping like jack rabbits to investigate the smell of our woods bedroom; porcupines sawed logs where we had inadvertently spilled a little salt; it seemed as if the black bears were crunching in the berry patches where we had seen signs of their wallowing as we came in. As the hours wore on, our nerves became more and more like pricking needle points and with our extreme fatigue the night was all but that place whither faithful Charon ships his passengers.

This was our bed lesson. And many is the night I have thought of that first black Hades, as I have built bough beds that were as comfortable as you could desire. Briefly, here is the way to make a mattress of evergreen boughs, or rather the tip twigs that have no limbs; and balsam, spruce, fir, hemlock, pine, and the cone-bearing green timber indigenous to the country you are in will make most excellent material. Nine out of ten woodsmen dump a pile of boughs together and call it a bed. This is about like taking a basket of food of all kinds, dumping it on the table, and calling it a dinner.

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Others advise cutting logs and making a heavy frame that will embrace the heap of boughs, thrown on the ground hit-or-miss, and keep them from sliding out of place when you lie on them. But certainly few campers will want to fell trees with which to make a bed on the ground, and it is no more called for than an automobile with two steering wheels. A thorough woodsman "shingles his bough bed."

That is, he builds up the boughs neatly and with care so that they form a mattress of several distinct layers of well-woven boughs with tips all pointed slightly upward and the larger butts of the boughs downward. Because it is thus woven and shingled together, this bed will stay in place when you pile upon it and, because the tips of the boughs are all up, it will lie easily, while the down-pointed stems will give added resilience and make for even greater comfort.

To shingle a bough bed, begin at one end and select each bough from the pile gathered for the purpose, putting it individually upon the ground in shingle fashion. That is, just as you might shingle a roof. Each twig slopes at an approximate angle of forty-five degrees with the feathery tip uppermost. As soon as the first layer is completed, begin at the other end and place another layer in the same way. The overlapping bough tips will weave each layer in place and the down-pointed butts will pin each layer to the one below it. Four, five, or six courses will make a most comfortable bed. When first completed, with boughs well packed

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by the hands as placed, it will be a mattress two feet thick, but it will naturally settle as soon as the weight of your body comes upon it. The size of this mattress will be made according to numbers, and when three or four are in the same party one large bed so built will be more quickly done and a better bough bed than two or three small ones for the individual members of the party. A good woodsman will build this bed in half an hour after his boughs are clipped off the trees with a sharp hunting knife. If there are two in the party, one cuts boughs while the other weaves the bed. The first time you try this bed it will take you an hour.

The bed that the author and his family have found best suited for autocamping under almost every condition of temperature, spring, summer, or fall, and the one that our six-months' babe recently decided she liked better than the brass crib with delicate springs back home, is the Metropolitan air bed. A few years ago the mention of an air bed was *ipso facto* a good joke. That was in the day when folks talked about the foolishness of putting music in a bottle (slamming the phonograph), or of messages sent without wires, or heavier-than-air flying machines. Today the air bed has won its place in the front rank of outing equipment in spite of early prejudice and stands on its merits as the ideal autocamping bed for women, children, or the men folks of the party. I know of several sophisticated campers who yielded with reluctance to the lure of the air bed on outing trips, and are so enthusiastic today that they



- 1 McMillin Auto Bed over car seats
- 2 Kenwood Wool Sleeping Bags on a Gold Metal Automatic single cot
- 3 Metropolitan Comfort Sleeping Pocket with foot extended under cot
- 4 The A., B., C. Car Bed

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sleep on these same pneumatic air mattresses 365 days of the year. There is no bed, from silk floss to the straw ticks that hark back to the days of real sport, that fits the contour of the body and rests tired muscles and backs like an inflated air mattress, and so many people sleep on them every night in their homes. But they are just as efficient in your bedroom at Hotel de Roadside, be it on a pile of rocks or a grass-cushioned turf.

Among the several various attacks made upon the air bed by the "old school" of woodsmen, who by the way are rapidly becoming extinct and many by the route of conversion, was the dogmatic assertion made again and again that it was cold business to sleep on air. This I know to be as silly as the old notion that the earth was flat. Any dead air space is a non-conductor of cold, witness your double windows for winter warmth, your interstices in the fabric of the warmest wool purposely woven to allow air spaces of cold-repelling virtue. And so with the air bed, you sleep on a dead air space that is the best kind of cold repellent to put on the ground. I have slept in mine on snowbanks.

For our family use we have double air beds 42 inches wide, on which two medium-size people can slumber as sweetly as on our double-coiled springs at home. The length of these beds is 75 inches and there is an extension tent-like flap at the head that may be held over the sleepers' heads to keep away drafts of air or indeed the falling dew if no tent is used over the beds. Each double air cot has two separate pneumatic

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mattresses and two air pillows. These are covered with heavy wool felt. The whole thing is covered with water-proof Tyco and balloon silk or duck and this is lined with wool felt. The whole "top" comes off this type of bed by simply unsnapping the snaps at head and sides, or you merely unsnap enough to crawl into bed and snap them back up as high as you please. The air mattresses taper thinner toward the foot. The regular single Metropolitan air cot weighs but 10 pounds complete and packs into a roll 25 inches long by 6 inches in diameter. There is a wider single cot two pounds heavier and 30 inches wide. You may order this bed made any width you choose. The duck-covered beds are about two pounds heavier than the balloon silk and Tyco.

With each bed there comes a pump for inflating the air mattress, but your mouth will do it as well. I can inflate our double air bed in five minutes. The trouble with what appears to be difficult for many is the fact that when you first begin to blow there is so much air space that little effect is noted and you may think you are not filling the bed with air. A mistake of the amateur is to put in too much air, and somehow it is hard to get away from the notion that it must require a big air pressure to really hold your body suspended off the ground. It does not. Repeatedly when we first used our air beds I had to unscrew the valve and let air out until the inflation was just right. This is easily determined when you get upon the bed preparatory to sleep. The heaviest individuals will find

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that the air beds suspend them in comfort. Use nothing but *full-length* pneumatic beds.

In the first air beds there was a sliding sensation, as if you were skidding sideways when you moved on the bed. The unique plan of construction of the Metropolitan has done away with this entirely by a system of inner longitudinal walls inside the mattresses. You get into an air bed and forget where you are in the dark. There is nothing strange or peculiar about it. It is the ideal autocamper's bed under most varying conditions.

Besides the "Original" and Feather-Weight air beds, the Metropolitan people make Whall's Compact Sleeping Bag, the Justrite Sleeping Bag (in Coutil Cloth weighing but 5 pounds), the Outing Camp Mattress, and the Brownie Camp Pad. This gives a variety from which to select exactly the type that fits your need perfectly and this concern will readily undertake making any special type of air bed to order. There are several other makes of air goods, besides the Metropolitan, which are excellent in their individual merits, the Perfection being a fine brand.

The Kapo Ceibasilk Sleeping Bag greatly resembles in looks the various sleeping pockets having pneumatic mattresses, except that silk-floss, or Kapo, is used for the mattress instead of an air-filled rubber container. The outside covering is made of rubberized cloth. In the foot there is a special bag for the feet, also lined with Kapo Ceibasilk.

For warm weather autocamping we have

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found the double folding Gold Medal cot excellent, and the several folding single cots of this same brand are so universally well known that they hardly need be more than mentioned. The double cot is 52 inches wide by 78 inches long, and stands 18 inches off the ground. There are many folks who sleep more contentedly raised up at least a few inches off the earth, and for family autocamping the double Gold Medal stands without a peer. Its folded compactness is marvelous, being but 39 inches long, by 10 inches wide, by 5 inches thick. We have packed this in our small car in place of the foot rail or stood it on end almost anywhere. Straps secure the folded sticks together neatly and it makes a clean bundle which carries in a sack. On a recent extended autocamping trip our five-year-old daughter, weighing less than 40 pounds, slept on this double cot beside an adult who weighed 165 pounds. There was absolutely no discomfort on the part of either because of this disparity of weight. The one thing that may be said against the folding double cot of any make is that it is a little heavy, around 30 pounds, but its compact folding features and the extreme speed and ease with which it may be put up or taken down, counterbalance weight that may seem a trifle big, but which is necessary for a double cot. Remember, too, that the single army cot weighs over twenty pounds. All things considered the Gold Medal Double-Width folding cot is a true accessory to autocamping and its unique folding feature is a wonder.

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For this double cot you may order a mattress of best quality knitted cotton felt, covered with heavy white or khaki Government Sanitary Drill. This is a soft, light-weight mattress and for the double cot tips the scales at 15 pounds. With this cot likewise may be ordered a complete canopy frame covered with mosquito netting attached to the frame of the cot for sleeping in insect country in comfort. This equipment weighs around 5 pounds and folds into a small package, 2 inches by 36 inches. The carrying case, if you care for one, must likewise be ordered extra. It has a handle and weighs but half a pound.

The Burch Pueblo Auto Bed is a wide cot bed with steel frame, but far more comfortable than any "hammock" cot because the tension of its canvas mat may be drawn up as tightly as a drumhead by a special ratchet device. This is one of the most popular autocamping beds because it really does not sag, is comfortable, and packs well. The bed is 6 feet 6 inches long, 42 inches wide, and when folded is a roll 42x8 inches, while the weight is about 35 pounds.

Besides the tent-bed combinations, which are covered in another chapter, there is another style of bed that is excellent for the autocamper. This is the car bed. We have found the A. B. C. Universal Car Bed most satisfactory. It is a sagless bed with no special attachments having to be made on your car for swinging it over the backs of the seat and the steering wheel. This car bed is built on the famous sagless tension of the Auto Bed Camp principle, the frame

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being made from selected hardwood fitted with special rust-proof fittings and covered with olive drab canvas. The weight is but 11 pounds and the folding most compact, being in length just the width of your car and a bundle rolled less than 5 inches in diameter, which may readily be secured to the top of your car, strapped to the top frame, out of the way and easily carried.

A special Ford car bed is made by the A. B. C. people, although the Universal Car Bed will fit it as well as the larger touring cars, even including seven-passenger models. The Sleeper, built for the Ford car, weighs but 8 pounds. Both beds are 84 inches long, and the Universal is 46 inches wide, while the Sleeper is somewhat narrower. Tension rails are at head and foot.

Another somewhat similar car bed is the Des Moines, but in this type the head and foot sticks are supported by legs and the strap adjustment determines the amount of sag, the rigidity of the canvas bed not being maintained by a tension device. The Genesee bed is of the same general character but has a few short steel springs inserted in the canvas. In the McMillin bed the car seats serve as cushions, the canvas resting the weight of your body down upon the cushions as a sort of bolstering mattress. The steel rods used with this bed will not fit the very small-size touring car. Another tonneau bed is the Spokane. The Red Seal Auto Bed is so versatile that it may be used over the car seats, or independently, or indeed for a porch bed.

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The Moto-Bed consists of only three parts, and swings over the tops of the seats in any touring car. This bed has a wooden frame supporting a canvas mat that is 6 feet long by 52 inches wide at back and slightly narrower at front. A center rail prevents occupants from rolling together, the tension being from side to side. In larger cars this car bed fits back of the steering wheel, but in smaller automobiles the canvas is slit so that the steering wheel extends up through, but in such a way that the comfort of the sleeper is not disturbed. The carrying size is about 3 feet by 7 inches square.

The Autobed is very similar to the above, and its frame is supported by legs extending to the bottom of the car underneath. This tonneau bed packs to 4 feet long by 5 inches in diameter, and it weighs about 25 pounds.

Any of the car beds are rather better for warm-weather than for cool-period sleeping because they allow cold to come up from below, like a cot bed, requiring as much bed clothing under as over the sleeper, and sometimes even more. With the side curtains on your car, the car bed may serve you for a roadside bedroom without any tent, but the lack of a tent will be keenly felt at various times, among them rainy days, and also the times when you have ridden in the car until you are sick and tired of it and want to get somewhere else for a change and rest.

Some autocampers have sawed down and hinged the back of the front seat to form a bed in conjunction with the rear seat cushion, but personally this seems to me a thing that is not

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only mutilation but unnecessary with all the fine car beds on the market.

Some motorists run their engines early in the morning to "warm up" the sleeping apartment in which the car bed is enclosed. This seems entirely unnecessary, and with my car the running motor would not warm it perceptibly on a summer morning if I all but raced the engine, for my motor does not heat, not enough, at all events, to warm the tonneau of my car.

So far only the foundation of the bed has been considered, the part you sleep *on*. Now let us consider what to sleep *in*. For autocamping the Kenwood sleeping bags, in any style, color, or weight, will be found more efficient from every viewpoint than almost any kind of bed coverings or various autocamping blankets. The Kenwood products are made from pure wool and wool of only the best quality, the strong, clean, long-fiber kind of specially selected quality. It is carded, spun, woven, and felted expertly into a thick but light-weight fabric that holds its shape under all conditions, being readily washed without shrinking an iota. It has a downy, thick, soft nap on both sides that makes its contact with your skin a pleasure.

In color the regular Kenwood sleeping bag is forest green and weighs but $4\frac{1}{2}$ pounds, with the length 84 inches, and the circumference 68 inches. Two other weights of sleeping bags are made, one around 6 pounds and the other 7 pounds. However, for warmth on chilly nights in high altitudes or on snowbanks, two or three of the $4\frac{1}{2}$ -pound bags, one inside the

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other, are far warmer and more to be recommended than two of the heavier bags, the air space between the lighter bags giving greater warmth than the same weight of wool in one or even two heavier ones. All sleeping bags may be had in grey instead of the regular forest green if desired. The top of the bag is equipped with special flaps, forming a double thickness of wool, that gives the neck and vital organs extra protection. The Kenwood people make several other wool articles that will be found of the highest quality, including Outdoor Comfort Stockings, Outdoor Motor Robes, Outdoor Comfort Rug (which laces to form a bag), Sitting Out Bags, Comfort Sleeping Blankets, crib and infant's coverings.

The Kenwood bags with rain-proof covers of canvas and special generous fly at the head may be used for sleeping in, without a tent over them, along the roadside. The canvas cover is cut and sewed along the lines of the sleeping bag and the water-proof fly may be secured over the head and shoulders in the form of an A-shape open-end tent, held so with stakes, and one or more bags nested, or telescoped together inside the rain-proof cover make a very light-weight and efficient bed for the autocamper. The water-proof canvas cover for the bag weighs $5\frac{1}{2}$ pounds, making the total weight of bag and cover just 10 pounds.

There are several other makes of sleeping bags on the market that have their own individual characteristics. The Downisilk, which is a comforter sewed into bag form, the covering

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being soft mercerized khaki. The Filson sleeping bag is another. There is no better blanket than a genuine army O. D. wool cover, if you prefer blankets to bags, but be sure you get a genuine army khaki of the best quality, as there are several substitutes parading. The bag, once you have made its intimate acquaintance, will be found a great deal superior to any blanket because it keeps you covered everywhere all the time and the same weight bag is far warmer in practical use than the same weight blanket.

For the autocamper who desires the sleeping roadside apartment *de luxe*, the author and his family have found something worth consideration, which is the use of the Comfort Sleeping Pocket—the ideal pneumatic mattress and sleeping bag combined—with our other beds. For instance, while the Comfort Sleeping Pocket is an air bed in itself to sleep *on*, and comes nearer than anything else to sleep *in*, just the same, when this excellent article is placed on a cot bed, spring bed, tonneau bed, or any kind of camping bed, acting in the capacity of a *mattress*, then you have the bed *de luxe*.

Understand that this combination of the Comfort Sleeping Pocket with some other foundation bed is not necessary, but it is certainly a wonderful place to spend a good night.

In very mild weather you may find the Comfort Sleeping Pocket both *bed* and *bedding*, but this is exceptional, as August nights at any altitude are rather chilly, especially when the

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air bed rests directly upon the ground, the lower air being colder quite naturally.

The makers of the Metropolitan Comfort Sleeping Pocket have recently put upon the market a wonderful eiderdown robe that makes excellent bedding to use with the sleeping pocket in cold night weather. This is the Poquoig Eiderdown robe, and may be had in three sizes: 60x80 inches, 72x84 inches, or 90x90 inches. It has a water-proof covering and is the best blanket form of bedding made.

No matter whether blankets or bags are slept in and cots, car beds, tent-bed combinations, or air beds are slept on, there is one important thing to remember and that is to always air out the bedding each morning. It is foolish to maintain that bags are less easily aired than blankets. Simply turn your bag wrong side out on a guy rope in the air and sun it while you are breakfasting and breaking camp. With the Kenwood wool sleeping bags this is a very simple task and if two or three bags are used, as well as the canvas cover, one inside the other, be sure to pull them all apart and reverse for the airing. The wool felt-lined flap of our Metropolitan air bed is always left back in the morning until the bed is rolled up, allowing it to thoroughly air out. The car bed and other simple beds described in this chapter need no special precaution in this matter, of course. But it must be remembered, as a prime essential rule, to air the bedding. This is necessitated by the "breathing" of the pores of the skin during sleep. Not only is it most unhealthful not to

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air out the bedding thoroughly, but it is most uncomfortable, since after the bags have been in use a few nights they will have absorbed a great deal of bodily moisture and be damp and clammy. Air and sun are just as essential to your autocamping bedding as your similar bed coverings at home. Indeed, when you stop to consider, they are more important, since your camp bedding is packed in a tight bundle all day long as soon as loaded into your automobile or trailer.

A whole chapter might be written on sleeping garments for the autocamper, but actual experience has solved the problem for our family, and we have tried a great many ways and means. The better plan is not to carry extra night clothing as such, but to use your extra underclothing for this purpose. You need the extra suits of underclothing anyhow in case of emergency and even if no emergency presents itself, like a skin-deep drenching in an unexpected storm, they may not be superfluous bulk if you use them for sleeping garments. On our feet in chilly weather goes a pair of heavy wool socks or stockings. Extra blankets or sleeping bags for more frosty nights may be added as needed. One of the most delightful garments for night comfort when all other things fail will be the extra wool sweaters. This is not theory, but is the fruit of experience. Some things sound queer when you sit by the table lamp and read them, and you wonder why when you try them out on your trip.

CHAPTER IV

The Combination Tent and Bed

THERE is no equipment more distinctly built for the sole purpose of autocamping than the tent-bed combination. It is the old story of killing two birds with one rock. By combinations of tents and beds into one unit for transportation and erection, the double problem of shelter and sleeping is solved. You get, generally speaking, a minimum of weight and a maximum of compactness by having the bed and the tent one single unit of your roadside camp.

In several of these combinations the outfit may be set up in conjunction with your car, or independently. In others the tent-bed may be used only attached to the automobile. And in others the camp is entirely independent of the car. In most of them the bed is a very important feature, forming the veritable foundation of your camp and supporting the tent. In some, the head room is limited and the living room nil. In others, there is plenty of head room, and a living room and dressing room as well.

The combination tent-bed will bear very close examination because it is something of a new thing under the moon and you will need to make



1 Schaefer Half Wall Outfit
2 A. B. C. Tent-Bed Camp

3 Another A. B. C. Tent-Bed Outfit
4 The Gold Medal Tent Bed apartment

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your selection most carefully for your peculiar needs.

The various A. B. C. autocamps present the most unique and greatest variety of all tent-bed combinations. The foundation of the various styles of camps is the remarkable "one leg" bed with a tension arrangement, pulling from head to foot, that makes sleeping comfortably an easy feat wherever night overtakes you.

The A. B. C. bed is nothing short of a mechanical marvel, and nobody need shy because of its apparently freakish lines. It has strength and buoyancy, and that means superlative sleeping ease. You might think that this bed would pull sideways when weight was distributed unevenly, but the fact is, it will not. In our own camps we have slept an adult with a five-year-old youngster, and there was no tendency to side-pull, nor was there any discomfort because of the disparity of weight. There is not the tendency to sag toward the centre with this bed either, a fatal drawback to beds that do not have the head to foot tension.

This unique bed may be used with a camp attached to your car or it may be used in a tent-bed camp independent of your auto. When attached to the car it is held supported by two clamps attached to the running board and which hold the head rail in place. A single inclined bar, or leg, extends from the head rail—where it is securely braced—lengthwise under the center of the bed. Half way down this leg are a number of notches, and a stretcher bar from the foot rail—likewise well braced on each

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side—fits securely into the notch selected. The position of the stretcher bar in its particular notch determines the height of the bed, which should be about two feet off the ground when the weight of the people who will sleep on it has been made to bring the bed mat down as far as it will go. Once experience has shown you the notch best suited, you simply put the catch device into this notch and go on guying the bed.

Upon the foot rail of the A. B. C. monoleg bed are three short guy ropes. The centre rope guys down to the end of the bed leg, while the other two go to pins driven into the ground nearby, much the same as at the corners of any tent.

The double bed has a mat 54x80 inches, being a very ample camp bed, and the weight is 20 pounds. Furthermore this interesting bed has only three parts to carry and assemble and is surprisingly simple and sensible. Three medium-sized adults, or two adults and one or two children, could occupy this bed easily in emergency. Its great strength and large capacity make this possible in safety and comfort. The simple bed is the same length and 30 inches wide. The bed mat is made from 20-ounce brown canvas.

Before leaving the subject of this monoleg bed, it should be mentioned that when secured to your car without the tent in position you have as good a canvas top table as you could desire. This is more fully described in the chapter on camp furnishings.

When the tent is put over this bed its ridge is the top of your car, while the rear wall of the

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tent is supported by two sticks on the foot rail of the bed. Two guy ropes are all that are needed to draw the tent roof taut, the ropes being attached to the same two pins that hold the foot rail of the bed. The locking curtain device on all A. B. C. tents is something to be thankful for, and is most efficient and instant in operation. You pull down the little ball on the chain and your curtain door is absolutely locked and the opening is as tight as any other part of the tent wall. The windows are screened and the flaps may be opened or closed or held at any desired position by cords on the interior of the tent.

The double bed, with running board brackets for attaching the head rail, web straps, guys, steel tent pins, and balloon silk tent, weighs only 35 pounds. The same combination, but the tent of 8-ounce khaki army cloth, weighs 39 pounds.

One of the best of the A. B. C. autocamps does not attach to your car but stands independently. The bed is exactly the same as the one described, but instead of attaching to brackets on the running board, it is supported by two telescopic rods. These rods are driven into the ground, one at each end of the head rail, and their upper ends support the ridge of the tent. The rear wall of the tent and the bed itself are attached in exactly the same manner as when this outfit is used in coöperation with your car.

The tent itself in the camp, independent of the car, is quite different, being in fact a two-

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room camp. The bedroom part depends on the size of the bed, which is 54x80 inches. The dressing room is exactly the same size but the walls come clear to the ground at the dressing room end of the wall tent, while they extend only to the lower part of the bed mat on the other. This outfit with its balloon silk tent, 4 screened windows, double bed, 2 telescoping rods to support the ridge, and steel tent pins, weighs 45 pounds. The dressing room, of course, makes a fine living room and dining room, serving just the purpose needed. You climb into your bed over the head rail. In 8-ounce khaki cloth this camp weighs 50 pounds. You may get an 8-ounce fly—which also acts as a carrying bag for the whole outfit—for this particular autocamp.

An important feature of the A. B. C. autocamps is the fact that they are a good deal like sectional book cases: you can use several of them together, joined in harmonious assemblies. That is, the four- or six-people camps are really double or triple the two-people size, and set side by side. The four-people size will really accommodate a family of six. The five-room Summer Home camp will accommodate eight adults and weighs but 120 pounds. The two-room camp will take care of a small family by using another bed in the dressing room. The versatility of the A. B. C. camps is a strong recommendation. You can make them do almost anything for you and lose nothing that almost any camp affords. Besides standing along your car, you can also face the camps together independently of the

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car itself, if so desired. You may have floor cloths or not, and flies are optional.

The attachment of the walls of the A. B. C. camps to the bed mat by means of a series of tapes and eyelets, not only anchors the walls to the bed, but serves another purpose. That is, the attachment forms an overhanging clothes pocket so that each member has nearly twelve feet of pocket space. The inward extending edge of this side wall, after forming a pocket, then takes the form of an eight-inch overlapping apron that lies flat on the bed top, and when the blankets are spread upon this the tent and bed form one sealed unit.

All the A. B. C. outfits fold and roll into space that is surprisingly small and may be carried upon the running board of any car, not even interfering with the opening of either front or rear door on some cars.

The Stoll Combination Bed and Tent comprises a sagless spring bed 18 inches high, 48 inches wide, and 73 inches long. The tent is supported by rods attached to the bed, is in the shed form, and in size is 75 inches square on the ground, 78 inches high in front, and 4 feet high at the rear. The front unbuttons and stretches horizontally to form a porch or to extend over the car top if desired.

The Dav-O-Tent Beds are very interesting, and are offered in three sizes, according to the width of the bed, which is determined by the length of the running board to which the bed will be attached. The three sizes are 45, 48, and 54 inches in bed width. Folded on the running

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board this style of bed forms a luggage carrier. The tents erected on telescopic steel rods over the beds are the half-wall type with screened and curtained windows. Beds with this outfit weigh 37, 38, and 39 pounds, and the tents about 35 pounds.

The Gold Medal tent-bed is nothing more than a cot bed supporting a frame upon which the tent rests. This autotent combination is set up independently of the car. However the car may be utilized to attach guys and braces. Indeed with several styles of tents and tent-beds set independently of the car, the automobile may be made to serve in place of stakes for guying the tent home; and likewise the car may be set close to the tent in a position to protect you from the wind.

The Gold Medal double cot with tent frame attached makes a fine roadside sleeping room. The tent frame is made of hardwood with the well-known Gold Medal folding construction features. It makes a rigid, roomy bed chamber by the roadside for two people. The tent is specially made to fit over the frames and is sort of a rather flat-roofed tent with lean-to attached, thus making a two-room camp with plenty of room for tables, chairs, wash-stand, and so on. The cot and frame fold neatly together, the frame sticks being a little longer than the folded cot.

Another style of tent-bed that works independently of your car is the Campo, and the double camp will sleep four people easily, or six by the addition of another bed. The tent is of

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the wall type and the peak is supported by braces from the beds at each end of the tent. This same tent in single unit may be used as a shed tent beside your car, or not, as you choose. The bed alone weighs 53 pounds, having a steel frame with springs that are more like those on the ordinary bed than almost any other tent-bed combination. This bed is 74 inches long by 48 inches wide. The weight of the tent and bed combined will come somewhere around 75 pounds. The bed is equipped with a mattress, and since the frames supporting the tent are not vertical, rather leaning outward at an angle, there is dressing room beside the bed.

The Schilling combination has a bed that weighs 65 pounds, and is 48 inches wide by 78 inches long. The head rail of the bed is bolted to the running board. The head and foot rails are supports for about two dozen coiled springs each, and these are connected by cables to form the springs of the bed. The tent is of the shed, or half-wall type, attached to the top of the car for a ridge. The springs are covered with a canvas mat.

The Stoll outfit is essentially like the Schilling, the bed weighing 63 pounds and being 46 inches wide by 75 inches long. The Stoll can be readily set up apart from the car. The tent is similar to the shed type of the Schilling.

The Tentobed outfit offers a steel tube frame bed, which sets up as one unit, having an adjustable end-rail to regulate the tension of the bed roll. The bed roll is equipped with extension springs. The mat is made from two heavy

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layers of canvas to give greater warmth and to substitute for a mattress. The bed is 4 feet wide, 6 feet 6 inches long, folds to a roll 4 feet long by 5 inches in diameter, and weighs 32 pounds. The canvas tent is a sort of hip-roofed affair supported from the bed corners by rods. The Double Tentobed is made by placing two single outfits so that they face together. This makes a camp with two double beds, having 5 feet of space between them. There is a 9-inch sod-cloth upon which the legs of the bed rest. Four windows with screens and curtains, also Marquisette net curtains on each side at entrance, make this outfit insect-proof. Base dimensions of this camp are 6 feet 6 inches by 13 feet. Each single unit folds to a roll 4 feet long by 6 inches in diameter, and weighs about 40 pounds.

The Rush Outing Outfit is a typical tent-bed combination. The Rush bed is 48x78 inches, folds to a roll 7 inches by 4 feet, and the bed supports the Lumberman's Style tent on steel telescoping tubing. There is plenty of room to dress inside the tent, and indeed to put inside another wide bed. The Emeraldine or khaki-colored tents with this outfit are 6 feet 7 inches front height, 6 feet 6 inches deep, and have plenty of head room. A silk floss mattress is a part of the Rush Outing Outfit, and the whole packs compactly. The carrying box of this outfit unfolds to form a camp table.

Another excellent bed with a tent over it, is the Schaefer Red Seal T Auto Tent, which is light in weight, roomy, water-proof, and com-

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pact when carried. It has two bobbinet lace screen windows, flap going over car and curtain between car and tent. This outfit is made with a ridgepole. The Red Seal bed with the Schaefer outfit is 17 inches high, 47 inches wide, 6 feet 4 inches long, and folds to a roll 6 inches by 47 inches.

The Berg Jiffy Auto Tent is a tent supported on the bed as a foundation, there being dressing room between bed and car, the car top acting as the ridge to the frame of the tent. This outfit is 7x9½ feet, with dressing room part 7x5½ feet, accommodating extra bed if needed, and weighs 87 pounds complete.

CHAPTER V

Comfortable Clothing

CLOTHING of the right kind for the motor camping adventure is a question that no other kind of outing can settle for you, the experienced woodsman leading you astray on one hand, and the hotel tourist on the other. Autocamping is a field of its own and it has its own peculiar needs in regard to comfortable wearing apparel.

The experienced woodsman tells you never to wear union suits for underclothing, because when your legs are wet you must strip nude in the cold to change to dry woolens, and he is very careful to warn against outer garments that are too "wooly" and so catch upon every twig, or too noisy in the brush, as the scratch and rustle of canvas clothing. At the start the autocamper will find the union suit much more comfortable to wear, especially when riding, for the old-fashioned shirt-drawer combination seems to collect itself together in a series of bunches at your back and hips, the jolting of the car serving only to make it worse. Nor will the average autocamper be getting his legs wet, for he will not be in the woods walking and his work in wet grass early in the morning about his "front door" will be done in hip rubber boots. Said rubber boots being a most essential part

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of the motor camper's clothing outfit, and an article that the woodsman does not believe in, simply because they are too heavy to carry and too hard on the feet for constant wearing.

The hotel tourist will tell you to take along extra clothing in a steamer trunk. He, like the experienced woodsman, will be wrong. The hotel tourist travels from hotel to hotel along his route, he must suit the veneer of convention, and hence he *has to have* "glad togs" with him. The autocamper does not have to "doll up" for the conventional dining room of any hotel, for he eats his meals at home, said home being his autocamping domicile. Many of us went through that steamer trunk siege, carrying it wrapped in a canvas or oil cloth covering to keep out sand, mud, and dust; and we have borne up under the overbearing glances of a hotel landlord for the last. We are independent of his tyranny.

And the understanding of just what autocamping clothing is for, will make it more easy to select intelligently. It must be easy and comfortable to ride in, must protect from wind and the chill of inactivity when riding, must not be "too warm" when we stop, must do for sunshine and wet weather, and must not include a single item not essential.

Going to the bottom, good wool underclothing should be worn unless you are in a very warm climate, and then it is to be doubted if you can find anything better than a light-weight wool suit. Wool serves as the best non-conductor of heat. It is for this reason warm in winter,

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keeping body heat in, and cool in summer, keeping the atmospheric heat out. Wool will take care of you when riding or sitting about camp, it protects in sun and rain, and is the only underclothing for every member of the family. At least two suits of wool underclothing for each person is the minimum.

The extra suit is for two things: for emergency and change while the other may be washed, and to afford you the best kind of sleeping garment. Three suits per person will be ideal, one being very heavy and the others medium-weight wool. One may use either the heavy or the medium for the nightly sleeping garment, according to the nights. And there is no part of the motor-camping experience of such a variable quantity as the temperature of the nights. The warmest nights in August in a temperate climate will not be found too warm for the medium wool union suit for your sleeping garment when you are sleeping in the outdoors.

Four pairs of wool socks or stockings should be taken along for each member of the party, two light-weight and the others very heavy. The Kenwood Outdoor Comfort Stockings are to be recommended, for they are woven from pure wool with an exceedingly soft finish comfortable to the most tender flesh. Home-knit wool socks proved that "the kind grandmother made could not be beaten" but are usually rather coarse and rough compared with the manufactured product.

Breeches, rather than trousers, are right for autocamping and I have yet to find anything

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more suitable for the purpose than the Duxbak outfits. These are made from the well-known water-proof material, called Duxbak, which is not only rain-repelling but also so scientifically wet-proofed that perfect bodily ventilation is permitted through the porous material. Knickers in waterproof or soft material are gaining in popularity, especially with women campers.

The Duxbak Riding Breeches are ideal for autocamping, being roomy and comfortable, having plenty of pockets that are big and deep, the two hip pockets buttoning with a flap, the two semi-top pockets being ten times more accessible than the similar pockets in the regulation soldier's breeches, and the Duxbak boasts two watch pockets. These breeches are equipped with both belt loops and suspender buttons. Personally I shall never wear anything but some kind of shoulder supports for my breeches, and I believe experience riding long hours will prove them best in nine out of ten cases. If you do not want to wear the ordinary suspenders, then try the invisible kind.

Duxbak breeches are constructed double at seat and knee and will prove the most efficient material possible, being sturdy and still more comfortable. The legs lace in front, something like a soldier's breeches, from ankle to a few inches below the knee. Leggings, puttees, or wool socks and high top boots should be worn with the riding breeches.

With these breeches a good wool shirt in khaki color will not only make a pleasing combination but will prove most comfortable to



- 1 Duxbak outing dress for men or women, and Russell Moccasin Pac boots
- 2 Ideal woman's outfit of Duxbak riding breeches, Norfolk Coat, waterproof hat and leggings, with Army wool shirt altered to form a middy

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meet all the various conditions of the motor camping life. The army O. D. wool shirt has one objection, and that minor: it is not made in coat-style, necessitating pulling off and on over the head. Otherwise it is a wonderful article. There are several makes of excellent wool shirts to select from, and so long as the make is pure wool you are safe. Two wool shirts should be in each individual outfit.

For the coat there is no better than the Duxbak Norfolk Jacket, purposely made to wear with the riding breeches and of the same material. The entire body of this coat and the upper sleeve is full lined with Duxbak cloth, making a double absolutely water-proof covering for the body with plenty of opportunity for bodily ventilation just the same. The collar is convertible with corduroy facing and there are adjustable wrist bands, allowing the cuffs to be buttoned closely about the wrist to keep out wind when desired. Roomy game pockets are invisible and open from the inside front on either side. There is a fly-book pocket for your pocket-book or book of flies, as well as a match or compass pocket inside the coat on the left. Then there are the two regular roomy side pockets. Special ventilation gussets are located under each arm. This Duxbak coat will be found extremely comfortable because built on "over size" lines, which should be the case with all outer garments really best for auto-camping.

For your head the Duxbak cap will be found ideal, being much better than a hat for riding.

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Two caps, or a cap and a soft hat, should be in each personal outfit.

For ten years I have found nothing better than pac moccasin boots for outdoor wear. Mrs. Brimmer and I find great comfort and endurance in our Russell's moccasin pac boots and they are ideal for autocamping, being water-proof as well as least tiring to the feet and giving all the protection of the strongest leather boot. Extra pairs of shoes or pac boots will not be taken as long as you wear a grade like Russell's. Anyhow it is most essential to carry at least one pair of rubber boots in the party, and the member who wears these will do the work about camp in wet grass.

A leather vest with wool lining is excellent for cold autocamping. A wool sweater for each member of the party is essential at all seasons and in all climates other than tropical. At night there is the double service from the wool sweater when it is worn as part of the sleeping outfit. A good sweater fluctuates with the thermometer and comes off and on when riding through country with variable temperature.

For the hands of the driver, leather gauntlets will be necessary at times, however; in warm weather we have autocamped for weeks without a hand covering of any kind. Climate and season will dictate the matter of gloves or mittens for each member of the party. Bandana or pocket handkerchiefs need only be mentioned. Goggles may be put in the same class with gauntlets, depending on personal needs and the commands of the environment where you are touring.

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At least part of the party ought to be equipped for wet weather *de luxe* and for this purpose there is nothing better than the Metropolitan "Rancho," a garment that has all the good points of the rain coat and the poncho combined, with the added advantage of being readily convertible into a blanket, and so compact that it may be carried in your pocket, or the car pocket. The Metropolitan capes are made in two grades, the "Perfection," and the "Rancho," the latter being the heavier and the better for autocamping, although for ordinary bad weather the lighter will serve very well. The Perfection Cape is made from Tyco silk, rubberized with pure Para rubber on one side, and smoked silk finish on the other. The heavier "Rancho" is double-coated black rubber. Both kinds open along the sides of the sleeves, fastening together with snap buttons.

For extremely cold-weather autocamping you may need heavier outer garments over those already described and indeed in summer you may find Western mountain roads that lead you over high altitudes where a heavy outer coat will be most essential. For this purpose some will prefer a Mackinaw, others a fur coat, and still others a lined leather coat with fur collar. Certainly a long coat will not be required, and for many autocampers the ordinary Mackinaw is just about right, being warm over the vital parts of the body and leaving the legs free, a motor robe covering the knees if necessary.

The individual outfit will include the following, subject of course to human whims and

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idiosyncrasies, and nearly the identical outfit will be found most satisfactory for women as well as men:

1. Underclothing, wool, 2 or 3 suits.
2. Stockings or socks, wool, 4 pairs.
3. Breeches, riding type, or Knickers, Wet-proof.
4. Leggings, puttees, or socks, 1 pair.
5. Shirts, woolen, 2 of them.
6. Coat, same material as breeches.
7. Cap and soft hat, or 2 caps.
8. Footwear, pac boots and rubber boots, 1 pair each.
9. Vest, lined leather.
10. Sweater of best wool.
11. Driving gloves, handkerchiefs, and goggles.
12. Raincoat, Mackinaw, or lined leather coat.

The clothing for women is a matter that auto-camping has put into a new realm. A pair of riding breeches not so long ago was a thing to be gaped at on the outdoor woman. Gradually hiking clubs introduced them and proved their value and eventually motor camping shook its fist in the face of false modesty, so that today for all practical purposes Mrs. Brimmer is equipped exactly like the author and the above list will serve as a rough guide for your help, being exactly what experience has proved most comfortable in clothing day after day, week after week, and indeed on a few trips we can say month after month.

The Duxbak riding breeches are purposely made for women with two side and one hip

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pockets, opening on both sides at the hips. These breeches are made of single-weight material and the lower legs lace exactly as the similar breeches for men. Duxbak leggings should be worn with these breeches, unless wool socks and high pac boots are preferred.

On some trips the women folks still seem to cling to skirts, and there are no better than the Duxbak riding skirt cut in such a way that the left buttons over on the right side, making a neat appearing walking skirt when used as such and as handy about the autocamp as a skirt can be when worn as for riding. Bloomers of Duxbak should be worn with this outfit. They have a narrow band and buckle below the knee, and openings on both sides. Generally speaking the women will leave corsets at home on the autocamping excursions. However if this article must be worn at all events, then the Ferris waist with shoulder straps is very good. This helps support the stockings and the clothing from the shoulders, a very comfortable way to accomplish this burden with the least tiring strain.

My wife and several other women have discovered that there is no waist made that quite equals a remodeled man's wool shirt for autocamping. This alteration of the shirt is accomplished by removing the lower part and making a first-class middy. Riding breeches may then be supported, as they should be, from the shoulders by means of a Kazoo elastic harness.

Children may be outfitted completely with outer garments from the same excellent Duxbak

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material with which their elders are made comfortable. Infants will require little different clothing than they would wear at home, wool abdominal bands being part of the outfit of our children until two years of age at all seasons and times of the year. From two to four years the youngsters may be outfitted in any strong clothing of sufficient warmth. Bloomers and Dutch-bloomer dresses are better if dark colored. A wool baby bunting makes an excellent outer protection and for cold nights may be used for a sleeping garment. From five years and on the Duxbak people have an outer outfit for your children.

All things considered corduroy is not the best material to wear on your autocamping trip. It is heavy and when damp is the hardest kind of material to get and keep dry. More and more outers are getting away from corduroy in favor of Duxbak, Kamp-it, serges, gaberdines, meltons (the last three in wool), moleskins, khaki, gaberdines, and duck (in cotton goods); some water-proofed and others not, and all of them them made purposely to make autocamping in comfort easy from the clothing standpoint.

CHAPTER VI

The Stove for the Purpose

THERE are a few primitive instincts that the hardest-glued veneer of civilization will never completely cover, and among these one of the most powerful is man's love of fire. The hairiest caveman just recently discovering the magic of stick rubbed against stick to produce a flame, or perhaps having captured it where lightning had left a burning stump, was never more enthralled by his fire possession than his razor-plying descendant of today.

In youth, a bonfire satiated the elemental passion, and whether of leaves collected by aching backs or brush and rubbish accumulated by Father Time, it was nevertheless a thing to be late to bed about.

Behind a man's love for home is perhaps his first love for fire. The ancients made fire the symbol of the hearth, the home, the family circle. Fire seemed to have a close relation to creation, to their sun gods, and to life-beginnings. And certain it is that the force behind life, be it chick in shell or protoplasmic stuff from which the stars are made, is heat, warmth, or something of temperature that is kind to the nucleus cell. How slight the dividing line between life and death. Fire is a great deal the brother of time and space and air.

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No wonder, then, that man almost falls down to worship it, and his reverence is almost ten times multiplied when he is autocamping. Then if ever the love of fire comes to the front and its real worth to the rudiments of living are most evident. A tour of a day, a week, or a month would be as stale as week-old bread without the camp fire in one form or another. Fire goes along with the freedom of the outdoors, with the independence of the autocamper, and is a part of the pathway that leads back to Nature.

He who autocamps must heed the call of fire to extract all the joy from his trip. Not that he needs to leave a smoking bed of ashes behind him, or, if less careful, a smoldering nest of live coals—a thing that was left to mark the trail of the pioneers. But some kind of a fire device, be it open to the sky or housed in some fire-making machine, must be along the trail of the outer, the lover of independent ways and means, the autocamper.

Fire, or rather potential fire, carried along with you in convenient form makes you a credential guest at Hotel de Roadside. Sometimes it may be a simple water-proof match box that unlocks the door to the campfire by way of yellow or white birch ribbons and dry wood, and after that you meet over the purple-red coals the chef, face to face, in the culinary department. It may be an open grate over your burning wood that comprises your outing stove, or more simple yet, merely solidified alcohol in cans inside the most simple little fire-machine

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you can imagine. Or your autocamping hotel may be made complete with a folding wood stove with pipe and elbow and damper and draft arrangement. But likely the type of stove that you will find more popular East and West is the merry little gas stove, burning gasoline, distillate, or acetylene gas.

Since the gas stove is likely more used by the autocamper than any one other fire-making machine, it will be rightly considered first. There are some campers who shrink from the gas stove today because they claim there is not the romance to it that is afforded by the open wood fire or fireplace, and their arguments may be well worded and well taken. The fact remains that in this modern age we must be sensible. In many sections of the country it may be unlawful to kindle a fire along the road, and in others it is perhaps impossible; at least unless the fire is enclosed in a proper wood fire-box. And I like to remind Sir Particular Man that if he is really going out into the open to do as grand-dad did, he should tour, not with a twin-six, but with an ox team or horses at best. And other things accordingly. So it is not beyond reason to convince him that after all the gas or gasoline stoves are not *ipso facto* instruments for taking the romance out of autocamping. It all depends on the mental psychology, the way you look at it.

There are several models of two-burner gasoline stoves on the market and at least one gas stove of the acetylene type. The autocamper can hardly afford to carry less than two



- 1 Cree Tent wood stove with pipe and legs
- 2 Common-sense collapsible stove
- 3 Using the gasoline Kampkook Oven
- 4 The Little Red-E Camp Stove
- 5 The Livingood Folding Wood Stove
- 6 Kampkook gasoline stove and kitchenette

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burners with him, unless his party is very small and even then the two burners are practically a necessity, one for boiling the coffee pot and the other for food preparation.

The Kampkook two-burner gasoline stove, with or without the oven and kitchenette features, most naturally fits itself to the outfit of the autocamper. The legs of this stove do not come off, but slide up into the body of the machine when not in use, nor do they protrude in the way when the stove operates. The cover to the folded stove acts as the bottom or base, in each corner of which rests the lower end of a leg. This fire-machine burns the same fuel as your car and so long as you don't neglect your gas tank you will never be without fuel for your camp kitchen, no matter where you go, which is a gigantic consideration for the autocamper. The gasoline tank for this stove detaches and packs inside the body of the fire-machine when carrying. It is a matter of ten seconds to lift the tank from the interior of the stove and set it in place at the end, no screws or bolts or anything having to be turned. You just put the stem of the tank in place and rest the end on the ground, or allow it to hang straight down, and that is all.

When carried, this particular gasoline stove looks like a metal suit case of very small capacity. It is less than 15 inches long, not 4 inches thick, and 8 inches wide, and it weighs but 8 pounds. Another beauty of this outfit is the fact that if you want a roast and bake oven you can carry the stove, fry- and bread-pan,

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right inside the folded oven, so that the complete kitchenette appears in shape like the stove alone. The Kampoven, with utensils, including the two-burner stove complete, is a little larger metal suit case, being 17 inches long, 11 inches wide, by 10 inches deep. This includes one 9x15-inch bread pan and one combination roasting and frying pan 9x15 inches with a unique folding handle that is a success, as mine has proven after many months of constant use during several seasons. The cover to the oven is not used as a part of the baking or roasting outfit, but has a hinged device that allows you to set up an 11x33-inch wind breaker back of your stove, if you camp in a gale by chance.

And it sometimes happens that you do get wind from unexpected sources when you camp along the highway, as the writer has found in scores of camps supposedly selected for being sheltered on the lee of mountain or green timber hedge. The gasoline stove has never been blown out in the most violent wind. You may have trouble to light your burners at the start in a high breeze, unless you are a smoker, of course, but once going the burners cannot be extinguished by wind. In some camps it has even been necessary to start the stove inside the tent simply because the wind would have extinguished the lighted match, and after once going the merry gasoline stove was at once put outdoors. Of course there is absolutely no objection to using it inside the tent if you so desire, and indeed this stove works on the same

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principle as the blow-torch, and can therefore be used indoors in your home if you so desire. I have a relative who always gets out his gasoline stove when he wants to pop corn winter evenings for the benefit of the kids. And he puts it anywhere it happens, on the kitchen sink or the kitchen table. There is absolutely no escape of gas from this stove and it is far more safe than the average kerosene stove.

The Tourist Camp Stove is another excellent gasoline stove of the two-burner type. The tank hangs nicely balanced at one end, and the combination oven, warming shelf, and wind shield is a worthwhile feature. The folding legs of this stove lock, open or shut, automatically. The burner plates appear to admit a maximum of hot flame, and the enclosed mixing chamber prevents rapid cooling of the vapor. This outfit may be had with a complete kit of oven, handle pan, baking pan, etc. Its dimensions are about 5x10 by 19 inches and the weight is about 12 pounds.

The Kamp Kook gasoline stove (not to be confused with the Kampkook already described) is a two-burner affair much on the same order as the others, but with fuel tank secured rigidly to the end, where the tanks on other stoves are detachable and pack within the case. With this stove comes a coffee pot, fry-pan with cover, sugar and coffee container, and the entire outfit packs within the case of the stove. The dimensions are about 5x10x18 inches, and the weight of the two-burner type is 18 pounds. It should be mentioned that most

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of the gasoline stoves may be had in one-burner, and a few in three-burner, style. The Kamp Kook, and others, are offering their camp stoves fitted with long legs that bring them up to ordinary kitchen stove height, a mighty convenient arrangement.

The Stoll gasoline stove, also of the two-burner type, boasts legs that stand this camp stove 27 inches high, and there is a shelf under the stove. The lid folds back to form a warming shelf back of the stove. The size is 4x11x18 inches and the weight 20 pounds.

The Auto Camp Stove has two burners, the fuel tank placed in the center of the case with a burner on either side. This stove is much like the ones described, except that it is assembled inside an ordinary tool box, such as carries on the running board.

The Glenwood Camp Cooker presents a unique idea in two-burner gasoline stoves, being a gravity feed affair, yet folding compactly. Also it has legs that raise it well off the ground. The fuel tank is elevated about the height of your head and holds enough gasoline to operate the stove 14 hours. There is a wind shield at sides and back, and a drop shelf in front. The size of this stove is 8x12x20 inches and the weight is 19 pounds.

Gasoline stoves present a problem when replenishing fuel, and to meet this difficulty one should go equipped with the American Gas Machine Auto Siphon, which takes gasoline from any kind of automobile tank and runs it into the tank on your stove.

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If you have never had experience with a gasoline blow-torch, you may have to learn the knack of lighting your gasoline stove, but this is a simple matter and the directions are complete with each fire-machine. The needle valve is unscrewed a bit and the little metal cup on top of the burner nearest the tank is allowed to fill with perhaps a teaspoonful of gasoline, which is at once set on fire by a lighted match. With each stove there comes a small pump, which is attached to the top of the tank by a valve and used to push into the tank air pressure for sending the gasoline or vapor past the needle valve.

In two minutes the fire on your burner has about gone out and the pipe of the gas tank just over it has become hot. Now, when the fire has about burned out where you put the gasoline, unscrew the needle valve just a bit. The gasoline will be forced through the valve and will quickly vaporize in the coils placed under the burner through which it passes before reaching the place of combustion, where it is burned as a gas. Sometimes you may not unscrew the valve quite quickly enough for the fire to catch from the burning fire over the burner and another match may be needed. This hardly needs to be mentioned, but often in unpacking you will forget the stove perhaps, and a match will do the trick if the fire on the burner goes out.

With any type of gasoline stove you must be just reasonably careful not to flood the burners when starting the fire. You know what a flooded carburetor means, and in a sense this is what you may do by giving your stove too much

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gas at the start before it is thoroughly warmed up and the gasoline vaporizing nicely. Once you have started this stove, and you should try it out with a new stove before your trip, it will be found more easily accomplished than starting a wood fire.

When you are through with the fire, you can turn it almost out by screwing tighter the needle valve, or readily turn it entirely out by closing the valve. This regulation of fire-heat intensity makes it possible for you to get instantly any desired temperature for cooking. After the one burner has been started, the second, which is independent of the other when not needed, is started by unscrewing the thumb screw, pulled through the slot in the end of the stove, and by lighting it with a match. There is no delay with this second burner, for it uses the vaporized gasoline made from the first burner. As soon as the second burner is lighted the blaze of the first will perceptibly go lower because number two is using part of the gas, and so the needle valve should be unscrewed just a little more to get the right flame from both burners. Always turn out number two burner first, and then screw down the needle valve tight to extinguish number one. The gasoline tank works best when about three-quarters full and will burn nicely from two to five hours, depending on the height of the flame and whether you have one or two burners going. Personally I have included with my outfit a little funnel that aids me in refilling the tank, for although the top of the tank is concave and

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the fuel readily runs into it, the tiny funnel makes it a little easier. This funnel carries inside the stove with the tank, wire grate, wrench for taking off the head of the tank for filling, and the pump for forcing in the tank air.

The great beauty of the gasoline or the gas stove is the fact that you have *intense* heat *at once*. The first time you use the gas stove you will be surprised at the short time it takes to boil the coffee from cold water, and unless you are wise and keep the burner a bit low you may almost burn what you are cooking over the other burner. In the stove used by the writer you may regulate one burner high while the other is kept low, and the same may be done with the other gas stoves I expect.

The Prest-O-Lite gas stove is nothing but a tank of compressed gas carried in a small container and a gas burner or burners, as you like. The tank for this autocamping fire device is a cylinder 6x20 inches, and may be carried on the running board or under the rear seat or in the tonneau of the car. Each stove with this outfit is a tiny burner that weighs less than a pound. A refill gas tank may be had at any of the more than 20,000 exchange stations in the United States. A great advantage of the gas fuel outfit is the fact that the same fuel that cooks your meal may be made to light your camp at night, and in this way the problem of camp illumination and camp cooking is solved double-headed.

Generally speaking the kerosene type of camp stove is not to be recommended for camping

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with your automobile. In the first place you might better use gasoline, and in the second a drop of kerosene may taint your whole camp commissary. However there are some who prefer kerosene as fuel.

An excellent kerosene camp stove is known as the Kerogas, which burns gas generated from the fuel. It is of the one-burner type and has legs and carrying handle. The cylindrical body is about 10 inches in diameter by 13 inches high, and the weight is 11 pounds.

The next most important stove to the auto-camper is the very compact collapsible folding wood stove. Personally I would hardly set out to autocamp without both a gas and a folding wood stove with me, for nights may go down near freezing when your days are up to summer heat and the wood stove comes nearer to making camp really *home* than any other thing about it. In climates, altitudes, or country where the nights are chilly the wood stove will be found ideal for not only warming up the tent for the night, but also for getting the evening meal. And in the morning it is the jolly wood stove that cooks breakfast and makes the snappy or foggy morning comfortable. Especially in rainy weather—likely the sorest of sore spots that could be touched in autocamping—does the wood stove come into its full sway. It keeps your tent and bedding dry and your spirits jolly in spite of the downpour. A wire screen spark-arrester will make camp safe when balsam or other spark-emitting fuel is burned.

There is on the market an improved type of

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an old stove. This is the Cree Common Sense Wood Stove especially made for use in the automobile and for the autocamper. It has wiped out that old balky trick of the sheet iron stove of warping by a unique system of almost invisible semi-tubelike braces on the interior.

The new Cree Common Sense stove with eight feet of pipe, elbow, collar for tent, legs, damper for pipe, front draft, bottom and lid lift comes in a canvas carrying bag less than 11 inches wide, 28 inches long, and 4 inches thick. It is almost unbelievable! The five sections of rectangular pipe telescope so that the size of the upper length is the full capacity of room space taken by the complete eight feet of pipe. When I first used this stove I spent fifteen minutes looking for the elbow. The makers of this pipe have eliminated this part of the smoke pipe entirely by the most clever arrangement of pipe that can be devised. You put the pipe together just as marked and you have two right-angle turns, equivalent to two elbows. That's all there is to it. It's all in the pipe.

In the first length of pipe, or rather where the first and second join, there is the damper. When packed in the neat carrying case the legs and lid lift are slipped inside the telescoped pipe, while bottom, sides, ends, and top, lie flat and only two inches thick. A remarkable feature of this stove is the simplicity with which it is jointed and unjointed by an L-arrangement. There are no clamps or clasps. You simply put the parts together and when the top is slid in place it absolutely locks the entire stove parts

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together, ends, sides, bottom, and top. Each pipe length is about 22 inches long. Two stand upright over the stove, two extend horizontally out through the collar in the tent, and the fifth length is the vertical chimney on the outside of the tent.

This stove packs easily under the rear seat of your car or carries neatly in the tonneau or in the luggage carrier on the running board. It can be put up or taken down in three minutes or less. The bottom should be covered with soil, sand, or small stones before the wood fire is started in it to secure best results and not cause even the best built bottom to warp under the strain of the intense heat of a quickwood fire. Some wood stoves that I have tried smoked the tent terribly. Never in any camp where I have used this stove has it ever back-smoked on us. Naturally this is a matter that the selection of camp site may have something to do with, for if the tent is turned so that the draft of the wind is down over the ridge or over some near barrier, then any stove will smoke without exception. The damper in pipe and draft in front of this stove combine to make fire regulation simple and effective. There is one lid at the top for putting in fuel or setting in the stew pot or fry spider. The top surface of the stove is 10x28 inches. The legs hold the bottom three or four inches off the ground and when collapsed and folded you could hardly guess that the small package contained a good-sized wood stove that will hold a fire all night, together with eight feet of pipe, two elbows, legs, lift, and the rest.

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When not wanting a stove inside the tent and desiring only to build a wood fire along the road, this same stove may be had without legs, bottom, or elbows and collar, and with but two lengths of pipe. The better way is to get the tent stove and then when you are merely wanting a fire at the roadside outside the tent, all you need assemble will be the sides, ends, and top, put up two lengths of pipe with damper, and you have a first-rate wood stove. The collar for the tent stove ought to be sewed into your tent before your trip starts, and a copper wire is supplied with each collar for the purpose. Never rip a hole in the wall of your tent if this is avoidable, but rather take a knife and break open a sewed seam, which will afford a place for the collar without mutilating your tent. When packed in the canvas carrying case or being set up or taken down, you must use ordinary care not to bend the parts of this stove, or any stove, and so make it more difficult to assemble next time. See that nobody steps on the stove in whole or in part. It may be interesting to know that this new stove is the result of forty years of camp stove evolution by a man who is a "go there" camper himself. It is to my mind the ideal wood stove for the autocamper, even the pipe hole being in one corner of the top so placed that it does not interfere with the use of practically the entire top for cooking purposes. There are several sizes of the Cree Common Sense stove to suit the size of your outfit and numbers of people. The Baby Cree is only 28x9½x11 inches, while the largest size for parties of eight

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people and tent to match is 12x12x39 inches and has an excellent oven built into one end. So complete is this line of wood camp stoves that there is even a non-collapsible special Tourist Model, with water-proof carrying case. The author prefers the folding stove for autocamping. The Cree people are building a combination wood and gasoline stove that promises much for making motor camping easy. This new stove is to burn wood when you can get it, or will handle gasoline when wood is not available, the two combined in a perfectly safe manner.

The Livingood wood stove is about 11 inches high, 12 inches wide, by 20 inches long, and boasts a hot water tank, pipe, oven, hearth, roasting pan, and coffee pot. The weight of the complete outfit is 23 pounds. The fire box burns either wood or charcoal, and has an ash space below with a door that acts also as a draft regulator. The fire door is 6x10 inches. There are no bolts or screws and the material is good quality sheet iron.

The Artesian sheet metal camp stove follows the ordinary box stove lines, but has legs that elevate it well off the ground. The top is 12x20 inches and the height of the fire box is 11 inches. The top has two covered holes. On either side this stove boasts a warming shelf. The pipe is of the flat type. The weight is 17 pounds. When folded the dimensions are 2x12x20 inches.

The Wehrle stove is about 18 inches wide, 27 inches long, 12 inches high, and with its cast iron legs the cooking top stands 18 inches from the ground. The oven is 8x11x16 inches. The

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top has four holes with 7-inch lids. The pipe with this stove is round, but of the telescoping type. The weight is 33 pounds.

A cast iron folding camp stove that will not warp is the Notabolt. Its non-warping feature is rather heavily offset by the fact that this little stove weighs almost 40 pounds. Its cooking top is also very limited, being but 11x18 inches. No pipe comes with this camp stove, but it takes regular 3-inch round pipe. The warpleless feature of this stove will be greatly appreciated by those who have never used anything but the ordinary sheet metal kind.

The Nugget Folding Camp Stove is a wire grate affair with reflector baker oven attached to the rear, which is the only side enclosed by sheet metal. A meat broiler comes as regular equipment. Set this stove down on a rock or bare ground and build an open fire beneath it.

The Mazura camp stove looks like a small edition of an old-fashioned drop-leaf table, having an open grate top with the drop-leaves of sheet metal. In the 8x9x16-inch size this stove weighs 7 pounds; while the 10x10x22-inch weighs 12 pounds. The Boyco camp stove is very similar in construction to the Mazura.

A unique idea in simple camp stoves is the E-Z Stove, which regularly burns charcoal. The fuel comes in convenient packages with fuse ready for inserting in the stove and lighting at meal time. While these stoves are so small that you can hold one in your hand while lighting it with the other, still they serve their purpose well. Two or three miniature stoves

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should be kept working simultaneously to get a full meal. The take-down feature is very complete and for really compact, very light-weight, and yet efficient camp stoves, the E-Z takes the prize.

A unique stove and oven that takes wood for fuel but has no pipe is the Red-E. Folded, this stove and its reflector type oven are slipped into a canvas carrying bag—much like a shopping bag—that is 12x20 inches and little more than one inch thick. The Red-E wood stove will boil, broil, and bake at the same time, and if you do not mind a little smoke, will serve as well as almost any wood stove, and certainly much better than an open camp fire.

Set the Red-E with the back toward the wind and scratch a hole under the rear edge for a draft. Lay four or five heavy sticks of wood parallel from front to rear, their ends butting against the back of the stove. Put your kindling on these, then place other sticks on top, criss-cross, allowing the ends to project out. There is no need chopping wood into short lengths as the longer ones are simply pushed into the firebox as they burn. To attach the oven, which may be used independently of the stove if desired, hook it on the back of the stove by the two wire hooks purposely placed, and set up the folding leg at each end to steady it.

In a high wind you may need to face the front of the Red-E into the breeze if you want to bake, for the cold air blowing directly upon it, as the stove would naturally set, would hinder its operation.

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A most simple fire-machine, that the auto-camper will find excellent for certain purposes, is the canned-heat affair burning solidified alcohol. For a quick heat on a small scale this simple stove is the proper thing. With our two small children we have always carried three stoves: the gasoline two-burner (or the acetylene gas outfit), the folding wood stove, and the canned-heat stove. The wood stove keeps the tent warm and dry, the gas stove cooks the noon meal along the road when we do not care to unpack everything, while the little alcohol stove heats the baby's milk at feeding time.

More simple stoves, or excuses for stoves, may be made by simply carrying grates, bars, or grids along. In many sections where auto-camping parks have been set aside, mainly in the West, although the East is rapidly falling in line, there will be found ready-built fireplaces waiting for you. Just the same, your own stoves will be the main reliance for your trip and most essential for warming your tent home in cold or damp weather.

Of late the old principle of reflected heat has been put to work to help the autocamper, and the reflector baker is the result. A wood fire is built in front of the reflector oven and the heat from the outside fire is put to work for you. The baker is folded into a small space and is very light, being made of aluminum or light material. It works standing with its V-shape body facing the fire, the grate on which camp biscuits, breads, cakes, pies, cookies, etc., are placed being level and on a height with the

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fire outside. Thus the heat is reflected against the top and bottom of the baking food in the oven. This oven is a fine one for the amateur because he can watch the process very closely. The reflector baker may be used with face turned toward your camp stove, as well as with the open fire.

The 8x10 size of the reflector baker will nicely hold a dozen biscuits and weighs but two pounds, folding almost flat enough to go under the floor mat of your car. The 10x16 size weighs five pounds and is about double the capacity of the other. The bakers are equipped with folding legs. The folded outfit comes in a canvas case and being nearly flat forms practically a negligible part of the equipment for your auto-camping trip.

If you use an open camp fireplace to cook, make sure to build it Indian style, long rather than round. Have a backlog of green wood if possible. Sometimes a trench scooped out will make the draft of the fire better and keep the smoke going more in one direction. One of the most successful improvised stoves I have seen used was made by digging a trench three feet long in a small hillock. The top for this was a piece of sheet metal rescued from a roadside scrap heap and the pipe was an old milk can from the same source with the bottom and tops off. It surely drew well, and a grate on top of the chimney was found an ideal place to do part of the cooking. The pot used acted also in the capacity of a damper to hold down the rather heavy draft of air. Of course this was not a

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stove that was portable, but served well for a week's camp.

A really light and portable woodsman's stove of homemade construction is the old center pipe affair, made by driving a three-foot inch iron pipe into the ground, and building the fire all about this vertical post, hanging the pots and kettles about by wires extended from the top. This is not a practical autocamper's stove because the blackened pipe and pots and kettles are not pleasant to have around other camp equipment. This stove has recently come on the market manufactured as the Campfire Grubstake.

There are several manufactured stoves and near-stoves that can hardly be mentioned here, but that serve the purpose intended in fine shape. Any article of the fire-making family will do its duty when handled as the makers instruct and for that purpose. And camp stoves are a good deal like women—Lord bless 'em. There is a type that fills the need of every autocamper and more than enough to go round. If you are wise in your choice, just as a woman's hand and heart make life more worth living, so the camp stove rightly selected for the purpose and handled correctly will make the autocamping trip a labor of love. The reverse comparison is as true. One thing sure: don't always listen to the lure of the appearance of the stove, but pass judgement solely on true utility. After all, "handsome is that handsome does."

CHAPTER VII

Keeping Food Fit: The Refrigerator Basket

A PROBLEM that will prove worth careful consideration for the prospective auto-camper will be that connected with carrying his food in a sanitary and safe place about the hot body of the automobile. In the early days of the avocation of autocamping the writer and his family were well satisfied to carry the butter in a glass jar, our milk came from the tin heifer, meat had to be eaten fresh cut, fish must come to pan direct from the hook, and fresh fruit and cool drinks, to say nothing of the luxury of ice cream and ices, were out of the question entirely.

Of course this applies to warm-season camping, and indeed ninety percent and more of us autocamp during the summer and early fall months when the days are warm to hot and the combined heat of the sun, the quick conduction of heat by the metal parts of the car, and the heat from the engine itself make a consideration that even a non-epicure cannot dodge. There is nothing that can quite take the joy out of autocamping like flowing butter, sour cow's milk, meat or fish that are toward the western sun in age, and messy, hot, sticky food that all but turns the stomach of the chef along the roadside.

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One of the biggest assets to autocamping is the appetite that touring brings to the family. And hence it is most important that good fresh food be set on the dining table de roadside, just as appetizing as that which comes upon the dining table "back home." The health profit of the trip is made or unmade by the condition of the larder in warm-weather camping.

Our first experiment had to do with a homemade ice box on the running board that had a drip arrangement underneath. My friends said I simply had to be good on my trips because that dripping ice box left a tell-tale track wherever I went. Several times I have been informed by interested folks that "something was leaking," pointing to the crude box on the running board. A homemade affair that will hold ice fairly well may be constructed and an ordinary box lined with zinc and insulated between wood and zinc with saw-dust, will make an ice box that may do. Any such device has the great disadvantage of being bulky, heavy, and the arrangement of the interior is apt to be most inconvenient.

By far the better system of keeping food fit along the road is to use the refrigerator basket. When this device came upon the market my friends hailed it as a place to keep their drinks cold on long trips, and at best it came upon the public as a camping luxury that was nice but not needed.

Today, after many adventures with my refrigerator basket and having tried it with everything, I class this basket as a prime essential to

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successful autocamping. The refrigerator basket is a necessity and not a luxury. It is not an article that is on the border line between the essential and the non-essential. It ranks among the first articles to be assembled for real autocamping.

With the Hawkeye refrigerator basket along we have, anywhere we wish to stop in the whole wide outdoors, our larder cool and fresh as in our ice box at home in the kitchen. Instead of carrying our butter in a glass jar, we now carry it often in the bricks just as it comes from the



The Refrigerator Basket carries your food anywhere, and the Gasoline Two Burner cooks it anywhere

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grocery, wrapped in wax paper inside the cardboard carton. It comes out along the road just as hard and unyielding as when the groceryman took it from his ice chest, and in many cases it has "frozen" harder by several degrees after being in our basket half a day than it was when we purchased it at some remote corner store.

Then there is the old, old story of milk on the camping trip. The writer has been through all the stages, from canned and powdered and condensed and evaporated to the real article. A few seasons ago we set our hearts on nothing but Klim, the best form of powdered milk that I can find, and we carried with us everywhere an egg-beater for the almost sole purpose of beating the powdered milk into water. In this form the powdered milk is certainly much better than when stirred with a spoon. But the best canned preparation is at best an imitation of the real thing. This is especially true when you and all the family are milk eaters by profession, and instinct and somehow the milky start we all get leads us pretty naturally to cling to cow's milk as the most wholesome food through after life.

With the refrigerator basket you need never be without fresh, ice cold cow's milk in the hottest August sun, if you are in country where the bovine flourishes by the roadside. When selecting camp in the afternoon we always ask about fresh milk for morning, and a camp that does not promise us milk, either near or within walking distance, is not a complete camp site, so we pass on and try again. Two or three quart bottles can be neatly carried in the refrigerator basket

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and they are better than a similar number of one quart glass fruit jars because they take up less floor space. The milk supply for the day is obtained from the farm or the small town milk station or the groceryman or milk dealer or meat market—anywhere convenient, but early in the day. The ice will keep in the refrigerator basket a little more than twenty-four hours, but each morning it is better to throw out the water and small particles of ice left for a fresh supply. Hence the milk supply can be depended on to keep a whole day and even longer. Butter and milk should be set against the ice compartment in the basket, which will naturally keep them a little lower in temperature than the things in the farther end.

Then there is the question of meat on the autocamping trip, and the refrigerator basket takes that from the hands of the butcher and carries it all day or more days fresh and good as though in the kitchen ice box. It is indeed a pleasure to start out in the morning with a favorite cut of meat stowed away in the handy basket and know that, where and when you want it to broil, it will come up as cool and well kept as meat could be expected anywhere. Indeed you can freeze it hard by putting it into the ice container itself. And years of camping prove the popularity of broiling steak along the road, hence the virtue of the refrigerator basket.

Then also there is the game meat that may be taken in season in the woods and fields beside the road. This may be dressed out and kept cold, the body temperature soon vanishing, and ready

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for a meal the first time you stop. Since the hunting season does not come as a usual thing in the warm months, the refrigerator basket may not play so important a rôle in this particular matter. However, I have seen the October when I was glad to have the basket in which to put my freshly dressed grouse, woodcock, quail, rabbit; and in the Adirondacks I have kept the refrigerator basket filled with venison when the hot days of the hunting month would certainly have spoiled it faster than it could be eaten by ourselves and friends.

The cold efficiency of this basket to take care of fish is a virtue that makes it well worth having for this purpose alone. And indeed if many fish are put in the basket it will need to be used for that alone. Of course the penetrating fishy odor may be eliminated by scalding the metal interior, but just the same the women, whose noses are pitched two full octaves higher than men's (as a friend once put it), are going at least to *imagine* that the fish have flavored the butter. Hence, when practical, I have used one of the small baskets for fish and game and things that might taint, and another for butter and milk. However for carrying short distances and for half a day, fish may be safely carried with other food in the basket if well wrapped in paper. The same principle exactly will guide you in this matter as that which applies to the family refrigerator. Usually fishing is done by the autocamper at sunset, infrequently in the morning. Usually there is time, after camp is made for the night, to go out and fish if you have

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selected a camp for that purpose, which nine out of ten of us do. In the morning the hard task of packing and breaking camp takes too long for much fishing. And the refrigerator basket will keep your fish until morning or noon or the next night, as fresh and tasty as when they came from the dark water where you hooked them.

Fresh vegetables may not present the trouble that the other foods already mentioned may include in the line of proper refrigeration, but just the same the cucumbers, and beets, and tomatoes, and garden fruit, which you can get in many sections at places along your route, are all going to be better and fresher if kept on ice in the basket. The same thing applies with far more importance to fresh fruit of all kinds with but few exceptions. Also berries will keep far better in your basket than anywhere else about the hot car body. The amount of fruit saved by proper refrigeration will pay for the basket in a season, provided you are fruit eaters. Personally I can see no reason why it is less healthful to eat fruit á la autocamping than when at home. Indeed, with the refrigerator basket we never leave our dining table behind us. We take it with us anywhere.

Even the luxury of fresh cream in the coffee is a reality with the refrigerator basket in your outfit. And it keeps jam and pies (if you are so epicurean) just as well. Then there is mayonnaise and ginger ale and other things far too interesting to mention that *may* someday go along with you and that you will want to keep

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as cold and appetizing as possible. I must include ice cream and ices in the good points of the refrigerator basket. We eat ice cream frequently on the family table at home and we do the same in the field.

Ice cream should be packed in a heavy cardboard carton and wrapped with five or six wrappings of wax paper, each wrapping separate and complete from the one before it. Then this must be packed in the ice chest itself with the broken ice all about it, which is the way you would have to keep it in the family refrigerator if you were to hold it in shape for half a day. And ice cream along a hot, dusty, summer trail tastes just a little better than anywhere I have ever eaten it, not to except a dish devoured in the scorching hayfield. I have eaten it both places.

If there is a baby, and especially a bottle baby, in the autocamping party, then the refrigerator basket is more than a necessity. Before we started with our six-months' babe, Gloria Bess, on an extended autocamping trip, we consulted He-That-Knows. We were informed by the medical man (and he is the deepest dyed-in-the-skin outdoorsman that I number among my friends) that our babe would be *better* on our trip through the healthful high altitudes we were to autocamp than at home. There were some provisions in his statement, however. We must keep the babe warm and comfortable nights, and keep her food pure and fresh.

It turned out that this particular two-weeks'

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trip, with changed cow's milk each day, did the youngster all the good the physician said. We were careful to get the cow's milk from sources that advertised themselves by telltale marks as clean and sanitary, and always selected milk that came from a whole herd, rather than just one animal. And the refrigerator basket received each morning a mixed allotment of cow's milk and the modifying factor that went with it to make up baby's feedings. It carried this as well as if it had been placed in our gloomy, immovable ice box "back home."

Besides the actual food for the infant, there is lime water, milk of magnesia, and other things I never learned the names of that the refrigerator basket will carry safely and keep in right shape on the hottest trips. If a refrigerator basket is a good thing for a babe, its a very good thing for the rest of the family.

Not only is the refrigeration all there is to this basket. It also affords a place in which the food is packed neatly, conveniently, and carries safely. Glass bottles, jars, and cans stand side by side with bits of cardboard or paper slipped between their contacting surfaces. Sometimes the dish towel is used to the same purpose. On smooth, macadam roads nothing at all is needed between the glass containers so long as they are all packed firmly against each other and the sides of the basket. Just from the standpoint of a sanitary, dust-proof, rain-proof place to carry food, the refrigerator basket is far superior to any homemade cupboard arrangement that I have ever tried. But its refrigerating capa-

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bilities make it that much more worthwhile for the autocamping equipment.

At first the refrigerator basket may seem a bit heavy as you pick it up empty, but this is because of the excellent insulation and the food-protecting principles on which it is built. It is practically air-tight when the hinged cover is strapped shut and there is a key-locking buckle on this strap. The ice compartment is separate and removable and holds enough ice to last thirty-six hours. Of course the greater space inside the basket is available for food packing. The interior and underside of the cover are lined with nickelplated metal, making it most easy to wash and keep clean in camp. The bottom is wood and the sides are strongly woven reed. Between the metal and reed there is a special non-conducting insulator which keeps the heat out and the cold in. The lid likewise is insulated. This basket is rust-proof and should last, with ordinary care, a lifetime.

Ice for the basket container is best obtained as early in the morning as possible on your trip. The first town we passed through after breaking camp always supplied the ice. Of course, where towns are long distances apart, as in parts of the West, this is a rule that cannot be held to, but the extra-large size refrigerator basket filled to capacity will take you from town to town almost anywhere where ice is obtainable. Generally we purchased something from the groceryman for the day and he gave us the ice. Sometimes the farmer where we purchased the milk had his own ice house and I can remember nearly a dozen such

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places where, in dairy country, we have filled the auto ice chest. Again the ice came from the meat shop where we had bought a slab of bacon or a steak. Several times the ice came from the confectionary store where the party stopped for ice cream, and sometimes when we stopped to get ice cream to take with us out on the hot trail ahead of us. In likely half the instances where we obtained ice no charge was made for the small amount required to stock the basket, and in the other instances where we paid for the ice, which we always offered and were glad to do anywhere it was obtainable, we were never charged over a dime, and more times it was a nickel.

In filling the ice compartment we have found that a well-packed mass of rather finely broken ice is better than one ill-fitting large piece. Ice broken for packing ice cream tubs is just about right, and if possible I like to mix one or two large chunks in the center, wedging the smaller bits all about tightly. The ice compartment itself has a tight cover so that the water from the melted ice does not slop out into the food part, and the compartment may be lifted from the basket for emptying the water. In fact we never carried the basket away from the car to obtain ice. We merely took the ice compartment out and had it filled.

The Hawkeye refrigerator basket is made in several sizes, and the one found most practical by the writer for small families is the "Tonneau" size which is shown in the photographs. (See Frontispiece and page 107.) There are two

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sizes in this particular style, one being 21 inches long, 10 inches wide, and 12 inches deep. The larger size is of the same width, but one inch longer and $2\frac{1}{2}$ inches deeper.

For the party of two or three there is the "Regular" basket, which may be obtained either 18 or 20 inches long, 12 or 13 inches deep, and either $8\frac{1}{2}$ or 10 inches wide. For larger parties the No. 1 "Auto" basket is made of slightly larger dimensions, with not only the lengthwise strap on the other baskets, but also a strap crosswise that enables the basket to be fastened to the car. A dull-finish rubber cover may be had with this basket. The No. 2 "Auto" style of basket is still larger; and there is still another style, the "De Luxe," from which to select just the particular autocamp refrigerator that suits your needs and numbers. The "Everybody's" basket is a newer model at a conservative price with tin interior and solid, rather than hinged, top, but in other ways similar to the regular Hawkeye baskets.

No camping trailer, with which the author is familiar, is built without an ice chest today. The value of food carried at low temperature is a recognized necessity with the trailer builder and user. What has been said about refrigeration of food in regard to the refrigerator basket, applies equally to the ice chest on the trailer. Too frequently in the past, car autocampers have not considered the importance of keeping food fit, and hence have not used the refrigerator basket. We should all take a tip from the

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trailer, and if we camp in our automobile, keep our food fit in the refrigerator basket.

If you prefer a running board refrigerator box, the Auto Refrigerator is to be recommended. In size it is about 8x14x24 inches and weighs 26 pounds. It is secured to the running board by clamps. The food and beverage compartments are at the ends, with the ice compartment in the center.

CHAPTER VIII

Camp Cookery and Utensils

NOW for the eats.

The unsophisticated might believe that you autocamped on rubber tires, but the first dictates of experience will teach differently. You motor camp on your stomach, just as the soldier marches. The long rides in the exhilarating air, most likely mountain-brewed (the air), and the excess nerve and physical energy that is burned from classifying your sensations of new and unique things—all these and more make your appetite sharper than any double-edged sword.

Usually food is bought day by day just as you need it, a reserve not being carried unless in country where stores are scarce. This saves weight and packing inconvenience. Your immediate needs for one day, two days, or three days are readily carried cold as ice in your refrigerator basket, or in the food box of your trailer. But when several days will separate you from stores and near-stores, you will need a little grub-stake. Father Experience has taught the author that the following ration list is about right for his family. It will be used merely as a rough chart, so much depending on the idiosyncrasies of the human maw that machine-like precision in the matter of eats is impossible to fit

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every case. This ration list is per man per week. Women in the party count as men when dinner time comes in the outdoors, and I have wondered sometimes if they shouldn't count for one and one-half men in appetite in the open! Children, no matter how small, provided they sit at the roadside board, should each count as a full-sized man. Such is the tonic and appetizing tyranny of the autocamper's stomach.

RATION LIST PER MAN PER WEEK

Bacon	2 lbs.	Onions	8 ozs.
Baking Powder	8 ozs.	Potatoes	5 lbs.
Butter	1 lb.	Prunes	1 lb.
Beans	8 ozs.	Raisins	8 ozs.
Cornmeal	1 lb.	Rice	12 ozs.
Coffee	8 ozs.	Sugar	1 lb.
Lard	4 ozs.	Salt	6 ozs.
Meat	3 lbs.	Sweets	1 lb.
Milk	4 qts.	Tea	1 oz.
Nut Meats	4 ozs.	Tomatoes, etc.	1 lb.
Oatmeal	8 ozs.	Wheat Flour	4 lbs.

The only rule about the above list, which may be followed safely without variation or exception is this: Don't use it solely for your mariner's compass on the high sea of diet without injecting a great deal of your own common sense. It will prove suggestive and helpful and make a foundation. You will want to add some articles and leave out many. Suit your palate—and capacity.

One of the old hardships of eating afield that has gone with the antiquity of the tallow dip

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for camp illumination is the milk-and-butter problem. Not so many years ago we used the cold grease from our bacon and ham in the place of butter, and milk came only in dehydrated form, that is, powdered. Today the refrigerator basket, or the ice box, takes care of this problem just as if you were at home.

In case you do have to use powdered milk in regions beyond the pale (or pail) of the cow, try Klim. Klim is milk spelled backwards and is the most satisfactory substitute for cow's milk we have been able to find, provided it is mixed with the water *properly*. By "properly" is meant the use of a good egg-beater. Powdered milk beaten into the water will foam, look, and taste the part of fresh milk as near as the substitute can come to the reality. Do not neglect the egg-beater. It is most essential to milk your canned cow, and a spoon or fork used in its place will prove a most ineffective milking machine. I have carried an egg-beater on my back into remote country where one had to leave behind every possible ounce of excess weight. Anyhow, the Missus says I'm fussy about milk, being an unweaned calkie. But your egg-beater will have other uses about camp, and if you must use milk in powdered form it will prove its worth at once.

Fresh meat is an article of diet that is most essential to outdoor living. By scores are numbered the red squirrel dinners our Game Getter has brought upon the table. They have been served from sautéing and stewing to roasting and squirrel-pieing. In season their larger

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cousins have graced our tables along the road. So have rabbits. We tried a woodchuck just once. . . . A raccoon and opossum have never come our way when autocamping in season to shoot them, and we have never attempted this meat, said by those who know to be right good eating. Muskrats may be all right, but I don't think my family would forget the appellation of rat attached to this meat, although the muskrat is a nearer relative of the beaver. Partridges have many times graced our Game Getter and eventually our roadside tables in season, and so have a few pheasants, and woodcock, and quail, and prairie chickens. I hope some day to add wild turkey. We have several times tried to produce bear meat, but failed. Ducks have frequently graced our board in season, and in many states the duck season opens a full month before other game. One delicious fall we camped and camped the roads of the Adirondacks with venison on the menu almost every meal. We have had it more or less infrequently on various other trips, but usually the season when you may shoot deer is a little late for the enjoyment of autocamping. Some falls are exceptional. We frequently have vacationed when cold weather alone rung the curtain to the end of our act, and the fall is a most delightful season to autocamp, especially if you are lucky and draw a gorgeous Indian Summer. Frogs' legs are excellent when you can get them.

You must remember to get out of your car and off the highway to do your shooting of game in season, because in many states not to do this

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would be unlawful. When game is not in season, fish is likely to be. I know of no place where you are prohibited from taking fish from your car or the highway—if you can do it. And fish will take the place of meat certainly. Many are the trout, and bass, and sunnie (or blue-gill), and rocky, and pickerel, and perch that have graced our autocamping table.

Game freshly killed should be well bled and kept in a place to thoroughly cool before eating, as it naturally takes considerably longer for the animal heat to leave a deer carcass than that of a squirrel. Most game meat will have a "gamey flavor" that is most objectionable. In many cases this is because of the lack of natural fat, and any game meat should be introduced to bacon grease or butter liberally. Most game, including venison at times, should be parboiled at the start anyhow, putting it over in cold water to which is added soda a-plenty, allowing it to come to a boil, and then pouring off the water and resulting scum. With almost all kinds of game meat we cook a few strips of bacon. Game meat is almost always dry, and the dryness is made more palatable by the bacon fat it absorbs, the flavor also being improved. You can't go wrong with game by parboiling and cooking with bacon. Onions are frequently cooked with game meat also for the seasoning which they give.

Fish may be eaten as soon as you get them from the water and ready for the fire. If dressed fish are to be kept in camp or carried some hours before eating, do not put them in

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water to soak, as this destroys the flavor. As soon as fish is cleaned and washed, at once wipe it dry with a clean towel and keep it in a cool place until ready for use. Of course for very long intervals you may put them into your ice box. The same is true of fresh meat.

Besides fresh meat and fish you may well keep the larder supplied with bacon, ham, smoked fish, and even eggs. Eggs were not listed on our grub ration chart because they present a difficulty in carrying that is objectionable to some. We have frequently carried eggs hundreds of miles, never more than a dozen at a time, and then only in good egg carriers such as are used in shipping eggs parcel post. Chipped beef is rather salty to eat in camp very frequently. Canned meat is questionable, but in some localities necessary when you positively can't get the fresh. When you are hitting the centers of civilization once a day or so, it is easy enough to get your fresh meat and fish at the market and keep on ice in your refrigerator basket or in your trailer ice chest ready for use.

The juices of meats and fish are what give them flavor and palatability. This juice is purposely extracted for making soup, stews, and gravy; but it should be retained for other purposes. This is done by first searing the outside of the meat in a hot pan, which sets the juices inside the seared coating so they must remain inside the meat or fish.

Frying or sautéing may not always be the better way to prepare meat for your roadside table, but it is one of the quickest, and done

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rightly it need not prove a stumbling block to your digestive tract. Heat the pan hot and grease with butter or bacon fat just enough to keep the meat from sticking. In the case of dry game meat use more grease accordingly. Frying in deep fat is objectionable, with the exception of frogs' legs, which are tough and tasteless unless so fried. Fry quickly over a fire that is not too hot and turn frequently, not puncturing the meat with a fork, thus letting out juices, but turning it with a knife. Season when about done and serve piping hot.

Chops, fat meats, rabbits, squirrels, and small game are fine sautéed or fricasseed and served with gravy. Fricassee is done by cutting the meat into small pieces, frying or stewing it, and then serving it with gravy. Birds like grouse, pheasant, woodcock, quail, and chicken are excellent served in this manner.

Broiling is much faster than roasting, but perhaps does not produce the same palatable result. Meat that is not tough should be broiled. Cut in strips about an inch thick, sear the outside, and broil in frying pan or broiler. Keep the container covered and turn with knife frequently. Serve in dish over which juices have been poured with seasoning.

Roasting meat at your roadside camp is easily accomplished with the reflector baker. Pin strips of bacon over the roast and put into the bake pan, pouring in a little water. Set the baker in front of your fire. Baste frequently. Reverse the pan when one side appears to roast faster than the other. Make gravy from the

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drippings. To barbecue is to roast an animal whole and baste with special dressing.

Braising improves tough meat and is half-way between frying and baking. The meat is put in the pan in two inches of water with a little bacon or pork and an onion if desired. This is covered and cooked, and seasoned just before it is finished. Gravy may be made by stirring flour into the hot grease, adding a little water if needed.

Boiling meat should be done by first suddenly dipping it into hard boiling water (to set the juices) for three minutes. The boiling should then be carried on with a slower fire or with the kettle higher from the flame. Stewing is an excellent way to handle tough meat or warmed-over meats, thickening with rice, vegetables, and even oatmeal and flour, and seasoned to suit.

Fish should be fried in very hot grease to a golden brown. Trout and other small fishes may be put into the pan whole with head, tail and fins on, but scales (if they have them) should be removed and the interior drawn out. Bacon grease is excellent for sautéing fish as well as game. Fish may be broiled over moderate heat with your broiler or strung on a green stick, frequently basting with drippings of bacon held just over the fish. Roast fish in your reflector or stove oven by covering it with a thin layer of butter or bacon fat before it is put into the pan. Baked fish is made ready by removing the fins and leaving head and tail intact. The stuffing is made by putting dry bread crumbs in the fry-

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pan with plenty of butter or bacon fat, stirring until brown. This is seasoned with salt, pepper, and sage, and chopped onion if desired, then stuffed into the fish. Wind string about the fish, place in pan and lay over it strips of bacon, then sprinkle on a little water and dredge with wheat flour or sprinkle with cracker or bread crumbs. Bake in a hot oven, basting frequently.

The chef ceremony is not a serious conundrum in autocamping, because you have everything to do with that you have at home, including the cook. This greatly simplifies matters, compared, say, with touring afoot through backwoods country where your utensils, and so your menu, must be rather limited. Best of all you have stoves with you that will do almost anything, and better still you have the cook on the job. It's very well for the amateur to fry bacon and eggs and boil potatoes; but when it comes to the fine points of the fine art of cheffing, you are glad the cook is in your roadside kitchen.

The breadstuffs problem is most frequently solved by the autocamper at the counter of the bakery or grocery store along the way. Camp biscuits are indeed a luxury worth trying. Biscuits in the raw-material state look like this: Wheat flour, $1\frac{1}{2}$ pints; baking powder, $1\frac{1}{2}$ teaspoons; salt, 1 level teaspoon; grease, 1 heaping tablespoon; water, $\frac{1}{2}$ pint. This will make a dozen biscuits, filling an 8-by-10-inch pan. The baking powder and the flour should be first mixed and then the salt. Rub into this the cold lard or the bacon fat until there are no lumps, using a tablespoon for your weapon, and then

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stir in the water until you have a rather stiff dough. Rub some flour on your hands, the baking board (clean oil cloth is good), and the rolling pin (which may be a round bottle or stick of wood with bark peeled). Roll the dough to $\frac{3}{4}$ -inch thick, then cut out round with can cover, using odds and ends to roll again, and place in the pan well greased.

Dough of any kind that has baking powder in it should be handled as little as possible, because the gas made by the powder becoming damp (which makes the bread light), is released by too much kneading of the dough and is said to be "sad." And a sad sight indeed it is, and heavy, too.

Drop biscuit may be made without baking board and rolling pin by simply stirring in more water to make a *thick* batter of the same formula given for the biscuit. Stir only enough to get out the lumps and no more, then drop young pyramids of the thick batter into the greased baking pan.

Flapjacks are readily made from prepared flour, and every autocamper swears by his goddess of pancakers from Aunt Jemima to Teco brands. We much prefer the Parker Pancake flours, predominating wheat, corn, or buckwheat just as you like. They make a richer and more fluffy flapjack, requiring half water and half milk to be added. If you are away from the source of milk entirely then the pancake flours that require only water are satisfactory.

Bread may be baked in camp but is not

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advisable unless you make more or less permanent stays in certain localities, and then you will likely be in a municipal autocamping park where a bakery will be just around the corner. Vacationing is not a time to indulge in things so tedious as bread making if it can be avoided. Cake and cookies of simple construction are another consideration. The following will make either cake or cookies for camp: Sugar, 2 cups; lard, 1 cup; water, 1 cup; flour, to thicken; salt, 1 pinch; baking powder, 2 teaspoons. The lard and sugar should be first creamed together and then the water added, after which sufficient flour is stirred into it just right to make it into cookies or cake. Spice and seasoning may be added as desired. Bake in moderately heated reflector of stove oven and allow to rise before browning.

Sometimes the chef will become demented and decide on camp pie. Under ordinary circumstances your autocamps will be such stimulators of appetites that the plainest food will be craved most, to the exclusion of palate ticklers. But camp pie may come upon the table as a special treat and is more easily made than it sounds, because the filling may be raisins, dried fruits, or fresh fruits and berries garnered by the roadside. Here is the way pie crust looks in the knock-down state: Flour, 1 cupful; salt, $\frac{1}{2}$ teaspoon; lard (cold) $\frac{1}{2}$ cup; water, 4 tablespoons. Use a knife to cut the cold lard into the flour in pieces about the size of peas. Stir in the water with a spoon, and if more seems necessary sprinkle it in slowly and carefully, testing to see

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when the dough is just about right. Divide the dough into two parts and roll each out thin on a flour insulated board or oil cloth on the camp table. Put that layer in for the bottom crust of the pie, trimming with a knife around the edges. Then press in the filling and add the upper layer, pinching the two crusts together about the edges. Place the pie in the reflector or camp stove oven and bake until done—ask your wife.

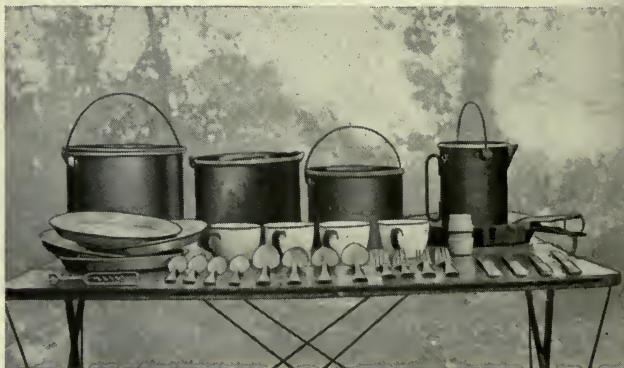
Dehydrated foods and canned this-and-thats are now put up in all sorts of ways to tickle money from the autocamper. Go your limit. Many vegetables and fruits can be carried in rather large quantities in dried form because of their light weight. Some like prepared coffee, but personally we prefer the kind started in cold water in the open. Or maybe you will like postum or cocoa or hot chocolate or tea.

It will hardly be necessary to explain anything that looks like Greek mythology about the preparation of beans, potatoes, rice, and the common things. Cornmeal may not be required at all, but frequently it is handy to dip your fish into in place of flour before frying, as well as for other purposes, such as cornmeal flapjacks and corn bread or good old-fashioned johnny cake. Lard may be dispensed with if you take plenty of bacon and butter. Nut meats are optional, of course, but somehow always seem popular with the outer. A high authority on food once told me that we eat too little nut food. Anyhow, this kind of grub tastes extra good in the open. Prunes may be carried easily in their dried form and make fine

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sauce and camp pie. Sweets, listed on my ration schedule, generally means sweet chocolate bars, a favorite food with the can't-be-satisfied appetite of the autocamper. Fruits and garden truck in season go without saying. Ice cream? Well, yes! And jello, too, fruit filled, and bearing whipped cream, if you like. There is no place you need stop. Autocamping is not going into a hinterland or trail-lacking wilderness where you exist on salt pork, sour-dough, and game. Autocamping is living just as you do at home, only more so. Plain food tastes fully three hundred percent better in the open.

The matter of cooking utensils is a little problem of its own that is easy enough to solve. We use and prefer the aluminum Wear Ever 4-party outfit and have found it in every way



Wear Ever Four-Party Cooking and Eating Outfit built of Aluminum and made to nest compactly

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ideal for autocamping. Some claim the aluminum cups burn the mouth, which they likely do slightly more than enamelware; however this slight disadvantage is more than made up in other ways. Others claim the aluminum fry pans cause food to stick and are hard to keep clean, evidently the result of using a *thin* metal. The heavy Wear Ever fry pans will be found excellent for general purposes. We do use a steel fry pan with folding handle for some things, and the large oblong combination fry and roast pan with folding handle, which comes with our Kampkook Kitchenette, serves purposes that call for unusual fry pan uses. Speaking of aluminum fry pans, if you believe no *pressed* aluminum spider can be made to suit you, then have one *cast*, which will be found in every way equal to the steel and even better. Aluminum pancake griddles are generally built of cast material. However, for autocamping flapjacks your ordinary aluminum or steel fry pan will do.

An aluminum 4-party set of Wear Ever utensils comprises:

1 7-qt. Cooking Pot	4 Plates
1 9-qt. Cooking Pot	1 Salt and Pepper
1 11-qt. Cooking Pot	4 Knives (steel)
1 2 $\frac{1}{4}$ -qt. Coffee Pot	4 Forks
2 8 $\frac{1}{2}$ -inch Fry Pans	4 Teaspoons
4 1-pt. Bowls	4 Tablespoons
4 $\frac{3}{4}$ -pt. Cups	

This outfit contains 35 pieces and packs neatly in a carrying case, weighing complete,

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less than 10 pounds. All handles of this outfit either detach or collapse. The same outfit may be had in from 2- to 8-party size, each equipped for the needs of the numbers and neatly packed. While the two aluminum fry pans listed are of the same diameter, their construction permits nesting, and the two placed into the larger steel frying pan makes the three take up only the room of the one.

One may invade the home kitchen for his autocamping cooking utensils, but this is most unsatisfactory, because things will not nest and pack well. Utensils that seemed the best of friends in your kitchen cabinet or the pantry seem to turn enemies and hate to get near each other in any desirable shape for packing once you try to get them chumming in the least space possible. The things you camp with may not come home looking just as they did when they left and new pieces may be necessary. The far better plan is to get a good outfit at the start made purposely for the sole purpose of camping, and add to this articles of the home outfit if needed.

Miscellaneous articles will need a place in your outfit. These will be: can-opener, egg-beater, pancake turner, long-handled spoon, long-handled fork, dipper, holders or hooks, folding buckets, large knife specially built for camp use like Marble Ideal or Woodcraft, soap, and towels. For an exceedingly large reserve of food supply, which cannot be handled by the refrigerator basket or trailer food chest, you may need extra food containers. Glass jars in the

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1-qt. size are possible but not practical. Your basket or chest will likely take care of all your food under ordinary circumstances, that is the perishable food, while the dehydrated fruits and vegetables, the sugar, baking powder, oatmeal, cornmeal, tea, coffee, and the like may almost always be purchased in metal or heavy cardboard containers that will cover tightly and carry safely in your pack basket or wherever you want to pack them. Articles that cannot be carried in original packages, outside of the perishable foods taken care of by the refrigerator basket, may be protected by large, heavy tin cans such as salted peanuts come packed in. Or you may simply pack such things in the large-size pots of your cooking outfits, which should have tight-fitting covers.

An article that solves many eating problems in the autocamp dining room is known as a Wilder Luncheonette, which folded in its container would readily be mistaken for a salesman's case, but when opened you have a table about 22x44 inches, six all-steel collapsible chairs, six each of knives, forks, spoons, cups, and plates. This Luncheonette is contained in a case 24x21x9 inches and easily rides strapped to the running board of the car. Two metal boxes with this outfit will carry all your food and extra cooking utensils. It is a dining table-and-chair combination, as well as kitchen cabinet. And it carries on the running board or in your hand like a suitcase.

There are several suitcase and trunk outfits on the market that are excellent, containing

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within their sanitary recesses every cooking and eating utensil, including thermos bottles, food boxes, etc. The Berg, Warren, or Prentis-Wabers outfits of this nature all offer excellent selections. A five-party trunk outfit is about 9x10x21 inches, while the average suitcase packed with utensils is about 6x13x19 inches. Either the trunk or the suitcase outfit carries on the running board readily.

The Kennebunk Lunch Cases are simple affairs for holding two thermos bottles and having also three tin food boxes. The case is equipped with a leather handle, and is about 6x14x19 inches. As a food container only this outfit is most excellent.

One notices a great many homemade food and utensil boxes bolted to the running boards of the autocampers' cars. There are several manufactured outfits of this nature now. One of them is known as the Auto Kitchenette. It is a box 12x28x40 inches, having manifold compartments for bread, sugar, coffee, all cooking and eating utensils, indeed everything. Furthermore the side of this box hinges down to form an excellent camp table beside your car, 24x48 inches and regular table height. This outfit may be carried on the rear by a special attachment, rather than on the running board, if you prefer. This Kitchenette carries a gas stove.

The Companion Hiker's Kit is a compact and happy solution of the eating afield problem. Carrying in a canvas case a two-party outfit of aluminum measures about 4x5x9 inches, and weighs but 3 pounds and 10 ounces. It consists

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of the following: one skillet, two plates, two combination kettles, two cups, two knives, two forks, two spoons, two tablespoons, and the kettle tops make two extra plates.

The Upton Kamp Kook Kit is a very convenient small-size cooking outfit. It comprises a folding broiler grid, two frying pans, two cups, a stewing kettle and coffee pot. The weight of this neatly packed outfit is 33 ounces.

Thermalware for both foods and liquids, and for keeping them either hot or cold, should be carefully considered. Thermal jugs and bottles are rather well known and very popular. The large-mouthed serving dishes, which carry solid foods, are even most worthwhile on an auto-camping trip.

The Co-Hot jug is not a thermos bottle affair in the strictest sense of the word, being heavy glass inside with a sort of tin pail on the outside and a shock absorbing insulator between. But this jug proves efficient for taking care of liquids and is very durable.

CHAPTER IX

Autocamp Furniture, Furnishings, and Fixtures

THERE is no part of the autocamping equipment that presents more elasticity than the matter of furniture, fixtures, and furnishings. Just what ought to be taken along is a matter of personal disposition. Many times our family has gone forth without a single chair or table, and you can get along without more than one stove—either taking your gas, gasoline, or wood—while it is possible in cold weather to do without the refrigerator basket, and folding wash basins and toilet articles have been left at home. However, when possible, which will be the case in a majority of all our motor camping excursions, the most camp furnishings should be taken that we can keep from not being “more bother than their worth.”

You can eat your meals, using your folding cot or the top of the refrigerator basket or some bulky package for your table, but the little space and weight added by the acquisition of a folding camp table is nil compared to the comfort it gives. We have found the Gold Medal folding camp table, with or without the shelf, to be everything that you could expect of a table. If you have made up your mind that all camp tables of the collapsible type are wobbly and

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drunken individuals under the load of a big camp dinner, then the Gold Medal will surprise you. It is almost as sturdy as your kitchen table. The top is of hardwood, finished with filler and varnish and there are no separate parts to top or legs. The legs lock to the top by a simple effective device and no screws or nuts are tightened whatever. The folding top is exceedingly well made, and the simplicity with which it is held in position when opened is only superior to its stability. When folded for carrying in your car this table is 3 feet long, 7 inches wide, by 5 inches thick, and weighs 19 pounds. The top is plenty large enough for four adults and one or two small children, being 27x36 inches, and this table stands 28 inches high. It is a table you will be glad to have in the house all year round because it makes an ideal, sturdy table for a hundred and one purposes, and will always be ready to fold into small space for camping.

Another Gold Medal camp table is of the roll top variety, being made in two sizes but having no shelf. The top rolls about the folded legs for carrying, making a cylinder that is about 6 inches in diameter and either 27 or 36 inches in length, depending on which size of table top you order. The smaller size is 27x36, and the larger is 36 inches square. This table weighs 14 pounds in the smaller size and 18 in the larger. If you so desire you may dispense with the legs and simply carry the rolled top with you, cutting four saplings for legs and two for cross pieces. The makers will sell you the top only for this purpose if you wish, and the weight for your

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camp table will in that case be but 9 pounds for the smaller and 13 for the larger size.

The Gold Medal "Racine" folding table is something like a folding card or sewing table, the legs not detaching from the top. It is 28 inches high and the top is 24x33 inches, the weight being 17 pounds. If you want a rather large table that will fold conveniently, then the Gold Medal Banquet Table may suit your needs. It may be had in 30-inch width either 5 or 6 feet long, and folds to 4 inches thick. The weight of the shorter table is 42, and of the longer 47, pounds. These two styles of tables are equipped with automatic braces of steel with hardwood tops varnished.

The Stoll Camp Table has a strong, rigid steel base with shutter collapsible top, all of which folds into a neat carrying case that may be used as a table cover. It is a most efficient table on something of the same construction as the Gold Medal table first described, except that the base of the Stoll is steel. The Puffer-Hubbard outing table packs 25x6x4 inches, but does not embrace the sturdy features of some camp tables. The Kay-Dee outing table is metal all over and in spite of its "spider web" appearance is sturdy enough for all practical camp uses. It folds 36x9 by about 2 inches, weighs but 16 pounds, and has a top capacity when set up of 27x36 inches. Another metal folding table is the Collapsteel, folding to 38x4x3, weighing 16½ pounds, with top capacity of 30x38 inches. The stability and sturdiness of this table are just average. There are several very compact

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and light-weight tables on the market made from wooden legs with canvas top, but to date the author has never tried one of these that can be recommended. The weight of the dishes on the table is so variable, and canvas is bound to sag a little, so that it is rather unsatisfactory unless some means of supporting the sag of the top can be invented.

Worthy of special consideration is the Stoll Suitcase Table. Folded, you apparently have a suitcase about 6x18x26 inches. But when opened you find, most surprised as you must be, a fine camp table with top 26x36 inches, and it stands regular table height. The legs and case of this outfit are of pressed steel, while the top is of seasoned lumber. Inside the suitcase table combination you find three compartments for carrying your entire set of dishes and your bulk food. Brackets at the end support your gasoline stove on a level with the table.

The Carry Kit is a combination of table and four chairs, all of which fold for carrying to about 3x7x27 inches. This outfit is made of steel covered with enamel, and a black art leather case encloses the five pieces of the set for transportation.

The Ackles' Prov-Box is a combination table and food or provision container. Folded, you have a box that straps to the running board, 13x16x32 inches, and weighing 35 pounds. Unfolded, you have a table 32 inches square by 28 inches high. Inside the folded box may be carried all dishes, bulk foods, and the four legs.

Besides the types of tables mentioned there

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are a few to be recommended that are set up right in the car, the Polhemus Colopso being one so conveniently attached that diners may sit right in their car seats and eat, the people in the front seat must of course be to a little inconvenience in turning half around to get at the food on the table behind them. Then there is the table attached to the side of the car and those that are beds to sleep on at night and tables *de luxe* by day. This latter outfit, which is to be recommended, is the A. B. C. combination bed-table, which does not appear like a bed at all when arranged for dining on it, and which at night is the foundation for a most excellent bed of suspended type, neither bed or table losing anything from the double service. This outfit does have the canvas top, which is objectionable in the small table, but with the high tension of the A. B. C. device there is not the same difficulty of keeping dishes right side up. Some excellent dining camp tables utilize the cushions of your car as seats, that is, are combination tables and seats. Such an outfit is the Burch Pullman Table and Chairs. This little outfit is of steel and so compact it will fold and go under your rear car seat. It is a most sturdy and efficient outfit that is safe and sane in the highest degree. There are other tables that space will not allow presenting. Enough have been described for a wide selection. See that a poorly constructed table, one that is unsteady or spindling, does not go with you. Several of the tables described are strong enough to hold up two men's weight and they lose nothing

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in compactness and light weight for their strength.

Folding chairs for your autocamping house-keeping are almost too simple to describe. For a most compact and simple stool there is nothing that will beat my Gold Medal "Racine," which weighs but 2 pounds and folds 2 feet long by 2½ inches square. Almost as good is the same make of stool, known simply as the Gold Medal Folding Stool. Both of these stools have brown canvas seats and of course no backs. The ideal camp chair with back is the Gold Medal Camp Chair. The Stoll Outing Seat is a stool built on the same basic plan as the Stoll Camp Table and is most sturdy, weighing but 2½ pounds and folding very compactly.

There are several pneumatic cushions that will warrant consideration and from the standpoint of comfort, especially when riding long hours in your car and more especially when folding chairs are not in your outfit, they are most excellent. The Metropolitan people make a Utility Sportsman's Cushion that is canvas covered and may be carried in your pocket when deflated. It has a unique "doughnut" shape and is as efficient for carrying your weight in ease as your pneumatic rubber tires on your car. This makes a handy cushion about camp for it may be used by bathers as a buoy or life preserver, supporting readily 200 pounds. Besides this air cushion the same firm makes a Utility Automobile and Canoe seat in nine different sizes, as well as a "seat back" of the same type in three various sizes.

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There are various folding furnishings that may or may not be considered prime essentials for motor camping, and mention of these will be sufficient. There is the Gold Medal folding Camp Cupboard with three shelves, each 9 inches wide and 18 inches long, weighing but 7 pounds. The back and sides are covered with brown duck and bound and hung with black binding. The Burch folding Shelves or Cupboard has three shelves 10 by 30 inches long and the weight is but 5 pounds. The folded capacity of both camp cupboards is about the same, the length of the Gold Medal bundle being shorter than the Burch, corresponding to the difference in the length of shelves.

Another article in about the same class as the folding cupboard is the folding wash stand, and this is made by the Burch and Gold Medal people in almost the same design. The weight of the folding wash basin is but two pounds, the frame is hardwood and the folded article is 3 feet long by 2 inches square. The basin part is a rubberized material.

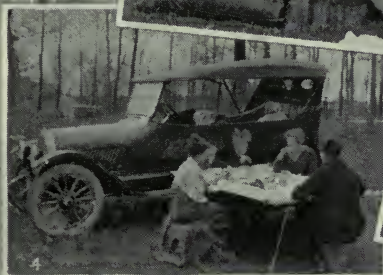
In your tent home some kind of wall pockets will prove themselves worthwhile, and for this reason several tents have these wall pockets sewed upon the walls. Our Burch Tourist Tent has two pockets, one each side of the rear window, and the toilet articles, including mirror, are left right here when the tent is taken down and packed in its sack. Nothing has ever been broken and the wall pocket always is ready when the tent is up to serve us with what we need. If your tent does not have a wall pocket



2



3



4



5

- 1 Hardy's Campers Friend Table-Utensil Outfit
- 2 Suitcase Outfit of eating utensils
- 3 Air Bed Rolled, Refrigerator Basket, Gas Stove, Cree Wood Stove, Double Cot, etc.
- 4 The A. B. C. Bed Mat stretched for table
- 5 Prest-O-Lite Cooking and Lighting Outfit, marble knives, ax, and game getter

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permanently attached you may want to procure the Stonebridge pocket made of khaki-colored material and having 16 compartments, the whole affair being 28 by 36 inches and attached by strings to any convenient part of your tent home, or better yet, sewed fast to your tent wall.

There are a few tools that will be indispensable about camp, and ace among these will be the right camp ax. Several years have proven to me that the best camp ax ought not to be too light in weight, nor should the handle be too short. The Marble camp ax with 20-inch handle and leather sheath is ideal for autocamping. The head is fitted with a claw for nail pulling and made of forged steel that pounding metal tent stakes and driving spikes has never battered in the least. The blade is $3\frac{1}{4} \times 5\frac{1}{4}$ inches, the weight 28 ounces, and the handle may be had in 16- or 20-inch lengths. The cutting ability of the tool-steel bit of this efficient autocamp ax is a thing that hard use in reasonable hands will never alter, as experience proves. The sheath is so built that you may carry this ax on your belt, which is most convenient when you have chopped an armful of wood and have to carry it a rather long distance to camp. The Marble people build several other styles of camp axes to select from, but the regular camp ax with 20-inch handle and sheath will be hard to beat for the average autocamper.

Some kind of a saw ought to be in every autocamper's outfit and I have always carried a little compass saw. This is the most compact saw made and will serve for all purposes, from

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cutting small sticks of wood to cutting boards and the general utility demanded of it by the housekeeper at the roadside home, not least being its ability to saw heavy meat bones. The compass saw is slender and you should never take a cheap one, as the best will be found none too good. Any hardware store will show you a variety of these saws. A small handsaw might be carried, but the compass saw will do practically as many kinds of work and is far more compact and easy to pack in safety to the teeth and to other things that might be harmed by the steel saw teeth. The ideal saw, whatever its kind, will have the hard steel construction that will permit you to saw off nails and bolts without injury as well as cut wood. Such saws may be had in the compass or hand saw variety.

Outside of the regular culinary knives you will need a general purpose knife. There are two that the writer has found excellent and either of them will serve you well. One is the Marble Ideal with 6-inch blade, and the other is of the same make, the Woodcraft knife with 4½-inch blade. Sheaths should be kept on knives without folding blades. The Ideal and Woodcraft may be had in leather or staghorn handles, and the Ideal comes in various sizes, with blade from 5 to 8 inches. For the hard work required of a knife about camp any folding jack-knife is liable to prove most unsatisfactory, and one of the best that I could buy with a 4-inch blade that locked open today lies in my duffle junk pile, discarded after one trip because the locking device broke and the pivot allowed

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the blade to wobble. This was entirely my fault, but the autocamper needs a knife that will stand hard use or prying and chopping small limbs, as well as dressing game meat, cutting rope, making shavings to start the fire in the tent stove, and so on without end.

Some good wet-proof match box must be with you always, and matches kept in it as fast as used. A nickel shaving stick box with screw top, or two brass shotgun shells telescoped—one being 12- and the other 10-gauge—will serve very well. The best device will be the Marble water-proof match box, made of seamless drawn brass heavily nickered, with rubber gasket in the cover. The size of this match safe is about that of the 10-gauge shot shell.

A small spade or shovel may prove handy in camp, and usually a small stove shovel will be sufficient. This will be used for scooping dirt into the bottom of your tent wood stove before building the fire, for trenching about the tent in wet weather, and perhaps digging a place for a camp fireplace, or even for digging your car wheels out of a bad place in the road. A miner's shovel is excellent. A shovel with round pointed blade will be much better than a square one.

Rope for various purposes, from a clothes-line to tying odds and ends securely upon the car, will be found necessary and nothing can beat sash cord for this purpose. It is closely woven and very strong. Wire will likewise find a place for itself about camp in most unexpected places. For this purpose copper or annealed wire only is right, because it will not rust.

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An assortment of nails, screws, staples, hooks, bolts, and nuts, and a few odds and ends of hardware that have a more or less direct bearing on possible conditions that may arise should be carried in a can with tight fitting cover. Always carry a strong pull-out rope.

A liberal supply of mosquito netting must be included in your outfit for warm-weather camping in many sections, unless your tent is lined with some kind of insect barrier. With children in the party the mosquito netting will be doubly important and frequently prove invaluable.

One of the finest articles that the author has ever used about his autocamp, filling the purpose of many things all in one, is the combination running board box, camp cook, and dining table, known as Hardy's Campers' Friend. As a running board box the Campers' Friend measures $9 \times 10\frac{1}{2} \times 33$ and is convertible in less than two minutes into a camp cook and dining table, having a top $26\frac{1}{2} \times 33$ inches, with two spacious shelves underneath for holding the food.

Included in this running board box, which is quickly converted into a table with metal legs, are the following utensils in oval shape made from heavy tin metal:

- 1 3-qt. Camp Kettle
- 1 $4\frac{1}{2}$ -qt. Camp Kettle
- 1 6-qt. Camp Kettle
- 1 2-qt. Coffee Pot
- 2 Fry Pans, $10\frac{1}{4} \times 7 \times 1\frac{5}{8}$ inches
- 1 Gasoline Kampkook Two-Burner Stove

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The covers for the kettles and fry pans may be used for plates, the larger kettle will serve for a dish pan, and the whole outfit has a very compact nesting arrangement. With the Campers' Friend, on special order may be had a galvanized iron service box, for carrying a dining service like plates, cups, spoons, knives, forks, can opener and other small articles. At night the lids of the Campers' Friend may be dropped and locked so that foodstuffs kept inside are safe in a roadside cupboard from squirrels or other rodents. A camp oven may be had with this outfit also.

A thermos bottle will be found convenient for autocamping at times, but not nearly as much as you may think. Not so long ago the author carried his thermos bottle with hot coffee into his duck blind and on cold auto trips, but of late we have found that the little gasoline or gas stove serves much better. If you do want a thermos bottle make sure you get the improved type with steel bottle instead of glass.

There are other things that will come in the range of autocamp furniture, fixtures, and furnishings, part of which may have been covered in the chapter on camp cookery and utensils, the chapters on beds, tents, stoves, refrigerator basket, hunting and fishing equipment, and others.

Be sure to look well after the equipment of your car in case of emergency, especially chains—often one or two may be required for front wheels, pull-out devices, emergency mud-hooks, and accessories. More will be found on this

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subject in the chapter on packing your automobile for autocamping.

Packets of toilet tissue are now specially made for the tourist, coming packed in a neat cardboard case, each holding 50 sheets in so compact a space that it fits into any pocket. Many autocampers prefer paper towels and the Onliwon brand is excellent.

A portable camp phonograph known as the Melody, plays any 10- or 12-inch disc records. It weighs 19 pounds, and is 8x13x15 inches in size.

CHAPTER X

Camp Illumination

THE matter of lighting your roadside camp at night is one that may not seem so very important. The fact is that in practical experience you will find you need the autocamp better lighted than any other. A hunter's camp may need but the campfire, for weary muscles and heavy eyes are "dead to the world" soon after dark. And the ordinary vacation tent camp in some stationary location where you may spend a week or two rooted to the identical spot may not need much illumination.

But five straight months of autocamping teach you many things, as indeed less will do, and one of them is that you *must* have adequate light at night. For one thing, a roadside camp is more a literal *home* than any other style of camp. Children may need to be undressed and cared for after dark, mending and sewing and correspondence must be done at times. And there are a hundred and one things you leave for the evenings. Through the day you are touring leisurely through beautiful country, or country that must be gone through to get to your destination, or you may be camping now and then for a day in the same spot. This most often happens when you have landed at some public autocamp-

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ing park or are in country where a several-days' camp is necessary for you to "see the country." Anyhow you will be busy days, and at night you will do what you might be doing back home. In a several-days' camp on the same spot you will likely have "company callers" in the evening, or some part of the equipment will need attention for proper functioning through the day, or maybe there are just plain magazines to read. Anyhow, you need an adequate light.

The most simple camp illumination is the candle and if you do not care for the dingy, flickering beams it throws, then get some kind of real camp illumination. Especially on a wet, stormy night when the wind blows, then if ever you will be sorry for the cheerless little candle light, and wish you had a brilliant lamp that would laugh at the gloom and lift your dampened spirits a bit. After a strenuous day on the road there is no better change and tonic than a lively card game in a brightly lighted camp. I realize that you may have other diversions, and maybe you may take along one of those camp phonographs for evening entertainment, but at any rate the bright camp is better on your, eyes and the whole psychology of good illumination in camp along the roadside is the same the little country groceryman confronts. You know whether you like to go in and trade at the brightly illuminated store or the dingy counter.

If you use candles be sure to get only plumber's candles, which are nearly two inches in diameter and only about six inches high. They last a long time and being large they do not tumble over

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easily. The better way to do, provided you use candles, is to take a folding Stonebridge candle lantern with you. This gives you fire protection that would be rated by underwriters as much superior to the exposed candles, and also allows carrying this simple light about camp. If you are sure you will retire after dark, and if no children need attention and feeding in the evening, and there are no magazines to read or letters to write, then candles will serve. Some of my friends claim they prefer candles because they hark back to pioneer days, the days that grand-dad loved.

Some veteran woodsmen and autocampers insist on carrying a kerosene lantern. Kerosene oil in any form ought to be put on the amendment prohibition list for autocamping. In the first place, gasoline will take its place better and you always have that with you—unless you drive a steamer. In the next place a drop of kerosene may taint a whole basket of food. Either the kerosene lamp or lantern, or the gasoline lamps with tender mantles, are a nuisance to pack and carry. They are not essentially autocamping equipment, rated from the standpoint of utility.

The ideal light for the autocamper is the acetylene gas light produced by the handy little Prest-O-Lite gas tank. The gas does not have to be manufactured or generated by the user. The tanks are already filled when purchased. When empty it is a simple matter to exchange them for a full one at any of the thousands of wayside garages and exchange stations through-

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out the United States and Canada, at a nominal charge for the gas only.

The strong features of this light are its intensity and mellowness. It more nearly approaches actual sunlight in quality than any other artificial illuminant. And of prime importance to the camper is the fact that it is sootless, odorless, and smokeless, as well as easily transportable.

Prest-O-Lite gas is really a double-duty fuel. Its importance as fuel for cooking is as great as its



No camp illumination is more satisfactory than the little Prest-O-Lite tank outfit near the centre of picture

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value as a lighting agent. And both may be done simultaneously from the same tank at the will of the operator. There is hardly any article of autocamping equipment more simple and efficient than the stem and burner attachment for lighting, unless it be the little Prest-O-Lite Stove, which may be folded in the palm of the hand. This may be set up anywhere—inside the tent in rainy weather—and takes up very little space. A full meal may be readily cooked upon it in a very short time, as the flame is intensely hot. It is connected to the tank by rubber tubing.

The tanks are equipped with double control valves, one for lighting and one for cooking. A union for connecting the Pocket Stove is provided, while the stem and burner are attached direct to the other control valve. This arrangement permits either cooking or lighting at the same time or separately, as desired. Complete control of the gas flow to each attachment is thus assured. The stem and burner for lighting requires less gas pressure than the Pocket Stove and in operation the needle valve for the former is not opened so widely.

The Prest-O-Lite outfit is simplicity itself. There is nothing complicated about it and it is ruggedly built, with nothing to get out of order or break loose. The stem and burner and the little Pocket Stove, 6x1½ inches, may be carried anywhere in your duffle bags, and if you are married to the pack basket, like the author, they will find a safe repository there when touring.

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The small Prest-O-Lite tank can be carried under the rear seat, or on the running board, or right in the pack basket itself. Gas is the 100 percent fuel and the perfect light. You cannot get around that, and with the Prest-O-Lite outfit, made purposely for autocamping, there is no reason for using any other kind of illumination. Using this fuel for light also enables one to dispense with the less compact equipment in favor of the tiny Pocket Stove. Where cars are already fitted out with this well-known automobile lighting equipment the gas may be piped direct by means of a length of rubber tubing direct from the tank on the running board to wherever it is needed for cooking or light.

Another type of acetylene light is the Justrite, offered in half a dozen styles. These lanterns are operated on gas generated from carbide, which the autocamper himself carries and loads into his lantern as needed. An excellent lantern of this type gives a 20-candle-power light, burning 3 to 4 hours upon 3 ounces of carbide. The flame may be turned high or low, and there is a powerful bull's-eye lens and reflector.

An electric lamp may be attached by a long cord to your car battery, but at best it will prove most inadequate for really lighting camp and may prove too big a drain on the storage battery if used at long intervals. After you have used a powerful gas light to make camp almost bright as day everywhere—not just in the spot light of an electric light from the car battery—you will wonder why you used anything else. Some campers use their trouble

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light, on its extension cord, for camp illumination, and this is fairly successful, as also is the spotlight from its position on the windshield. Personally I prefer a good flashlight to any bulb lighted by car battery current, the flashlight being more portable and useful.

The use of flashlights by the camper is as old as the invention of this hand electric torch. The author completely wore out a three-cell flashlight with bull's-eye lens after three seasons of camping several years ago, having to mend it with a copper wire on his last trip. Promptly another three-cell flashlight was procured and this has been carried faithfully until this past season. Last year I discovered the ideal autocamper's hand electric light, which is the batteryless flashlamp distributed by Elsæsser and Watts. The trade name for this efficient hand electric torch is Electro Automate "Batteryless Flashlamp."

Anyhow, at first use it will be disappointing to the autocamper, for it is a good deal like learning to ride a bicycle, you have to get used to it. Since this flashlamp does away forever with that eternal nuisance of carrying extra batteries for the old-style flashlight, a blessing that falls upon camping like rain on a parched meadow, its slight disadvantages are counterbalanced. Once you get accustomed to the operation of the batteryless flashlamp it will be like riding a bicycle, you won't know you are doing it, the finger action necessary will be automatic and unconscious.

In a recent autocamping adventure, when the

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Missus and the author left our main camp along the roadside to motor to a black bass river to get fish for breakfast, they were caught in the dark with an most unexpected blowout. Right there the efficiency of the little batteryless flashlamp in the hands of my wife won an everlasting place in our autocamping equipment. Although she had never tried operating the lamp for any length of time, it proved no trick to keep a steady, strong beam of illumination playing on my work of changing tires. The familiar little *buzz-buzz-zip* of the little batteryless electric lamp is bound to be a happy sound to the autocamper when a hand light is called for about camp.

In place of the ordinary battery in the ordinary flashlight, there is in this improved type a small electric dynamo, so that pressing the finger lever repeatedly operates the electric generator and lights the bulb. You push the lever against the body of the flashlamp, a spring throwing it out again. It is an easy matter to keep up a steady, slow lever movement that will make your electric dynamo give a constant light. This little batteryless affair will not give the intensity of illuminatin afforded by the big three-cell flashlight with bull's-eye, but it will give plenty of light for the work expected of a hand lamp about camp. It takes up very little space, being easily enclosed in the palm of the hand, and is wonderfully well constructed. The case is water-proof aluminum, and the builders claim it will work under water, although personally I have not tried its submarine qualities. But I

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do know that rain storms do not have the slightest effect upon its efficiency.

Again I want to warn you that you will not be impressed with the little batteryless lamp when you first see it and try to operate its finger lever, but once you have actually put it to the test of actual camp use, you will not go again without it. Many times two people will need flashlights at the same time for sundry purposes, and the safe thing will be to carry one old-style flashlight and one batteryless flashlamp. Even if you run out of a battery for one, you will never lack light from the other.

A somewhat different type of batteryless flashlight is known as the Magnet Lamp. This operates by means of a permanent magnet and multipolar armature, giving an excellent beam of illumination. This lamp is worked by giving a chain a quick pull, repeating this operation frequently. While this lamp is excellent and requires no battery, it does have the slight disadvantage of requiring both hands to operate it, one to hold it and the other to pull the chain. To facilitate its operation, however, a cord is attached so that this lamp may be hung about the neck, requiring then but one hand to operate the chain.

Remember that a camp along the roadside is pretty conspicuous when lights are displayed inside, and especially amusing and interesting to passers-by are your moving silhouettes. Which is only caution for you to turn the lights dim when it comes time for getting ready for bed. No matter what the material or color of

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your tent, this same custom should be followed. You will find the white canvas tent illuminates much more easily than any other color of canvas, which is true of the other tent material as well, for the white walls reflect the light all about, while dark walls absorb a great deal of it.

CHAPTER XI

Making the Youngsters Comfortable

NOT so very many years ago it was not good practice to take children along on travel vacation trips, if indeed on any "adult vacationing," and there was a most popular notion stalking abroad that the kid ought to be at home in the nursery, especially at night. Moreover youngsters were considered a general nuisance anyhow. Who wanted to bother with kids on a vacation trip? The fact is that vacationing as we had to do it a few years ago about precluded the children, and so they were left at home.

Autocamping is essentially a family vacation institution. The children need the change, the fresh air, the healthful free life of camp as much as, or more than, adults. They enjoy the trip and it is for them a liberal education. Besides you feel most like having a real vacation with the whole family enjoying all the things that you are enjoying. Many is the time I have wished in my heart of hearts that Mother and the Kiddies could be with me in some remote "stag camp," and enjoy the health-restoring beauty of landscape, air, and sky that I was selfishly enjoying while they were away back home in the same humdrum atmosphere every day.

And then suddenly came autocamping as the

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ideal family vacation. This is one reason why motor gypsying is bound to remain popular year after year. It is something on which the whole American family has pounced as a drowning man grasps for the rope. This is because it is a natural and a right and a very beneficial means of vacationing. It does not tear you away from home ties, for you take home with you. It does not require an enormous expense to entertain your family at hotels and transport them by steam train, for your car is your cross-country, transcontinental vehicle, and your tent is your hostelry. Autocamping presents a thrill a minute to every age and occupation. It is the easiest place to take your children.

Some of our recent trips have been made with our baby, but six months' old when the first trip was initiated, and she not only did as well, but better than she had been doing at home. She gained weight, slept nights like a hunter, and was the most jolly member of the party. With us for the past several seasons also has been another youngster four years older, who did not go autocamping at quite so early an age, but who likes motor camping to pie any time. What is more, the outings in the open have done them both a great deal of good.

I have to thank our family physician, himself a man who never camps less than two or three whole months of the year with his whole family, never having stopped even for the youngest, for starting us right from the beginning. When our first babe came it seemed to me that the good times the Missus and I had had in

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the open would have to be postponed indefinitely. Somehow I had more than average reverence for the medical man and the corner drug emporium. It appeared like taking too big a chance to autocamp far away from quassia, and turpentine, and Lady Jane Gray's (or somebody's) Worm Cure, cucumber seeds, soothing syrups, paregoric, ipecac, nitre, croup cure, Save-The-Baby Preparations in general, not to mention modified milk and a few others.

I'll admit that emergencies may arise on any trip, and the Security First-Aid Kit will take care of that, while the chapter covering the subject, I trust, will form something of a guidepost. Preparation for and prevention of infantile troubles will be mainly a matter for prior consideration when selecting your outfit, and the Security First-Aid Kit will take care of ordinary emergencies and slight ills.

But it must be fully understood, as any outdoorman physician—and you ought not to have any other species and likely haven't—will tell you, that a doctor or a drug store can do very little for an infant compared with the tonic of living in the outdoors. Medical science is pretty limited with the youngster, and about all it can do is to start it off with a yell in its lungs and a knot on its navel cord, the rest comes from proper feeding, clothing, and habits. These the mother can take care of in camp along the road almost as well as at home with all the appliances at her command to make a real home by the wayside.

The clothing for very young children will be



1 Cree Tent Wood Stove and Refrigerator Basket keep Baby happy
2 Inside Burch Tourist Auto Tent cozy as at home

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exactly the same as at home, and on the trip they will be dressed just as when the girl takes them for their afternoon ride in the reed baby buggy. Your tent can be kept as warm and cozy as you like, it can be illuminated as well as your home, the beds can be selected that will be equal to any stationary four-poster built, and the cooking and feed can be taken care of just as well as anywhere. The gas, gasoline, or wood stove will prepare food, the refrigerator basket will preserve it, and there is no essential need of the human infant that you can't have with you. Nor will the children spoil the autocamping trip by their presence, in fact they will enhance it. Invariably we have found them to have better appetites, better manners, and better nights in our roadside camps, than at home. The fresh, pure, forest- and plains-scented air is the secret.

Makers of the best outing clothing recognize the fact that today children are camping with their parents and so there are several outfits made for the youngster of four or five years and older. The Duxbak outfit is about ideal, and more is said about this in the chapter on clothing.

Adults may exist on canned or powdered milk, but children ought to have nothing but fresh cow's milk. This is no more a problem with the handy refrigerator baskets, for milk and butter and other food may be kept in your camp as well as in your kitchen. There is no difference on that score in living at home and on the road. The chapter on keeping food fit has explained the efficiency of the refrigerator basket in detail

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from our actual use of this device for a long period of time on hot-season trips.

Your camp may be kept as dry and warm and cozy as your home with the folding wood stove of ample capacity that will go under the rear seat and take up less than half the available space, but that goes into the tent with four legs, eight feet of pipe, and even a lid on top of the same identical size as that of the ordinary kitchen range. This has been very fully explained in the chapter on stoves for various needs of autocamping.

And the children can be slept on the best of beds in your roadside tent home. Our babe has slept in the rear seat of the car, in her Gordon Motor Crib in the tonneau of the car, and with her mother on the Metropolitan air bed. The air bed is the best place of all, and for the purpose ought not to be put upon the ground unless there are no damp air drafts that come in under your car or tent walls. Tents with windows and with ground cloths sewed in may be closed up so well that the bed on the ground is all safe for the baby, but otherwise it had better be raised on a car bed or folding cot. During a teething time our youngster never awoke once during a night after she was fed at 10 o'clock, sleeping on the air bed, through a period of fourteen consecutive nights. This proved the air bed ideal for youngsters of birthdayless ages, speaking of the annual celebration of the natal day. The main thing is to keep children warm. They are like little Indians and sleep well in the open because Mother Nature meant that all of us should do it

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that way and the child is closer to the intentions of Nature than ~~w~~older folks. The Kenwood baby blankets are the very highest order of bed coverings for baby.

There is just one and the only real limitation that the very small infant will impose, and that is the matter of distance you may go in a day, naturally the little one must not be overtired and shorter trips are advised. We frequently do 80 to a 100 miles in a single day with our babe, and have since she was eight months' old and somewhat acclimated to autocamping, having once gone 132 miles in a day. Children will sleep a great deal on the trip and will thus counteract weary muscles and exhausted nerves with Nature's best restorer. However 200 miles a day is entirely too much to expect any child to stand, and most adults too, if you are out for more than just a few days at a time.

Children will drink a great deal more than adults and more frequently on an outing trip and here again the refrigerator stands as a necessity of first rank. Roadside water may or may not be pure, and in some sections it is dangerous, while in others unobtainable, hence grade *A* milk from the bovine ought to be on hand, ice cold and refreshing in the your Hawk-eye basket for the youngsters. If grade *A* cow's milk cannot be obtained in sparsely settled sections, then choose a farmer who has a clean barn, a neat appearing home, and clean cows. This is really easier than it sounds, for you can keep your eyes open and select just the farmer you want from likely hundreds of farms that

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you will pass. Where milk is unobtainable, then there are some good manufactured drinks, but I will not recommend any single one of them. Our better plan has been to boil all questionable water in milkless country and put it in the refrigerator basket to pass out cool and refreshing when needed to the children. Of course in desert country, a place that children should be taken under advisement only, the drink proposition is another consideration.

Remember that children's legs are short and that they will tire excessively if dangling from the seat. The simple remedy is to pack the floor of the tonneau with equipment where they will sit and upon which they may rest their feet, but do not raise this "floor" so high it cramps them. It is easy to make it just right, which is the only way to autocamp anyhow. My wife says that I am something of an old maid, and maybe I am. But I believe in going right in spite. . . !

In the case of a bottle baby, we know by two hundred years of experience that everything must be kept most sanitary and dust-proof. Bottles, nipples, basin in which to heat the milk over a canned-heat fire by the road; everything must be carried in the most sanitary manner, which is simply another way of saying that the refrigerator basket must be a part of a really successful autocamping trip. We pack the bottles and glass jars with modified milk into the basket tightly, wedging clean dish towels where there is any space, and there they carry under a strapped and locked dust-proof

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lid inside a metal and insulated container, the autocamper's ice box. It is always best to have changes of clean bottles and nipples so babe may have a sterilized one for each feeding when actually touring.

The plea that baby ought to be left home with the nurse because of the tiresome task of carrying her on the lap is dispelled by the use of the Gordon Motor Crib, which appears more satisfactory to me than a hammock affair, giving less jar and throw from the jolting of the car. Here likewise the baby may sleep a large part of the time when the car is moving.

A rubberized bag should be taken to keep wet changes in just as you would do on a shopping trip with your infant. To keep off flies and insects plenty of mosquito netting should be in the outfit for making baby comfortable, although this will depend entirely on the country and conditions you encounter. Nobody will take a small child into country infested by any nuisance, of course.

Baby's bath is taken by our Cree Common Sense wood stove, just as at home, with a Gold Medal folding wash basin handy. Other essentials will be soap, wash cloth and towel, talcum powder (Stearate of Zinc is by far the best), boric acid solution, bottle of goose oil, and absorbent cotton a great plenty.

A whole chapter might be devoted to the benefit that an autocamp trip will be to interest children in Natural History, Woodcraft, and the Simple Life. Always the children like to take part in your good times, fishing and bathing

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especially. Twice our oldest daughter, when autocamping with us near water, tumbled head first into a lake in spite of careful watching, but I would no more think of leaving the children home because of perils like this than of staying off the highway because of automobile accidents running into epidemics.

CHAPTER XII

The Autocamper's Castle, the Trailer

THE camping trailer is indeed the autocamper's castle. And it is more. It is his ever present domicile. It is his movable home on two or four wheels, preferably two. With a trailer tagging along unnoticed in the rear, the motor camper simply forgets that he is camping and just tours the country. His car is free from duffle and equipment. Then when meal time or night appears, he remembers that he is camping as well as touring, for right behind him has followed his home.

The autocamping trailer does more than kill the proverbial two birds with one stone. You can literally say it kills six birds with one stone. That is, it solves in one single unit of equipment the problem of tent, beds, stoves, food transportation, furnishings, and illumination.

With a trailer you are as independent as a feudal baron. You are lord of creation. You can camp and live anywhere that a road ribbons the topography of the civilized world. And like the baron you have everything about you needed for making your life comfortable and enjoyable. More than that, you have easily eliminated a bugaboo that haunts the car camper sometimes, the bugbear of packing. Finding just the place to carry everything in the ordinary

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automobile reduces itself to the ability of your ingenuity, to your being a Handy-Andy. Packing the equipment upon your trailer is a matter of scientific precision, for everything is builded for just the place it is located—both when trailing and when making your camp—and you carry everything in its appointed place and put it to its foreordained purpose.

Comparing camping with car equipment and with the trailer is a thing that every autocamper does. It is right that he should. If the trailer was far and above the car outfit in every way, then the former would crowd the latter out exactly as the railroads crushed canals. But neither the equipment you carry in your car is perfect, nor is the trailer; so the count is about even. For certain trips I have found one better than the other, but it all depends on where you are going, when you are going, why you are going, with whom you are going, and a dozen other things. Reduced down to the naked facts, it seems to me that the autocamper with a car outfit has sort of a "homemade" outfit, while the trailer autocamper has a "ready-made" outfit. The day will never pass when fifty out of a hundred will not prefer to think and plan out their own outfits, while the other fifty will believe that the men who devised the trailer knew a great deal more than they, and so this class prefer the autocamper's castle. It is exactly like two men who love dogs; one insists on training his own to the ways he wants the canine to follow, while the other believes that a professional trainer can do it better. And so

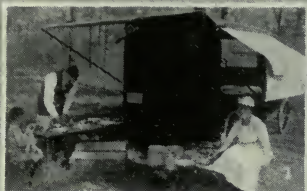
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one autocamper believes that he can best tell what he needs, while the other is mighty glad they make trailers all ready and waiting for him to hitch behind his car.

There is no quarrel between the trailer and the car outfit. At its hottest it is merely a little friction caused by a difference of opinion. The fact is that for some people and some trips one is right and best, but generally the other is likewise feasible. This matter of choice puts spice into autocamping. If it were without thrills, like putting a penny in the slot and drawing a stick of gum, then the avocation of autocamping would lose most of its fascination. Variety is the spice of autocamping.

Just as a mule can pull a much heavier load than it can possibly carry, so the auto will take along your outfit on the trailer *behind* the car with much less labor than *in* the car, pound for pound considered. A load of 750 pounds in your car in the line of outfit would be folly; but the same load will follow your car without a perceptible increase in gasoline or tire cost. The pull needed to haul such a load on a trailer over a level road will be but 20 pounds. Your car will never seem to know it has a burden behind, and the lug of the trailer up hills and down will be hardly noticeable.

Figured from the standpoint of burden to your car, the trailer and an outfit approaching the completeness of the camping trailer and carried in the car are about even. That is, you load upon your car beds for four to six people, tent to accommodate them, food and furnishings



1 The Kampkar in public camp ground 3 The Adams Motorbungalo
2 Kamprite Trailer 4 Livabout Camping Car
5 Kitchenette opened on Motorbungalo

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and you will do well if you keep the weight down to 400 pounds for everything. All the equipment with the trailer, and the unpowered car itself, will weigh 750 pounds. And it is a well-established fact that your car can pull the 750 pounds at least as easily, if not more so, than the same car under the same conditions can carry 400 pounds. In short, there is little difference from the standpoint of load on your motor whether you ask it to handle a complete car outfit or a complete trailer.

We have found the Adams Motorbungalow a *de luxe* camping trailer outfit, with: two double spring beds and mattresses; a complete kitchenette including ice box refrigerator, folding kitchen table, shelf, holders for utensils and dishes, water tank, gasoline stove, and plenty of room to carry all bulk food; roomy wardrobe with hanger rod; screened and curtained windows to the number of five; and an absolutely water-tight roof. Speaking of the roof, this is a frame of light wood over which is placed 10-ounce heavy oil duck, and topped with Fabrikoid, much like the automobile tops of the best cars. From each side of the top extend leatherette curtains, or flaps, this giving double protection of canvas and leatherette over your head.

The beds counterbalance with the roof of this outfit, so that when opening the double spring beds their weight lifts up the roof; and *vice versa*, when shutting up this camp the weight of the roof in settling down helps close the beds. Although there are small adjustable braces that may be let down at each corner of the extended

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camp, still this is not necessary under ordinary conditions, so substantial is this outfit. It is braced in place securely by a foot extending down from the draw-pull and by the rear step. This camp can be unhitched and completely set up in five minutes anywhere. It is automatic simplicity itself. Just step inside, push out on the upright beds, and as they easily swing to horizontal your camp is automatically made entire.

The 3-foot-square door that opens the kitchenette and wardrobe, slips off its hinges and becomes a camp table of regular height. The kitchenette may be opened from inside or out, whether you are trailing this outfit on the road and need to put in provisions, or have it erected in camp. Over the kitchenette and wardrobe there is a triangular-shaped shelf three feet on a side. The sides of this trailer are steel and the bottom is matched wood. The rear door has two panels, a screened window, and may be locked from inside or out.

The hitch of the Motorbungalow is instantaneous ball and socket of the best type. Wheels are 30x3½ inches, the bearings are roller type, and there are excellent steel springs. This outfit attaches to the frame of your car, being secured by a rear bumper bolted by two braces to your car frame. The body is 84 inches wide and the sides 13 inches. The complete camp erected makes a shelter 9x12 feet. The complete bungalow weighs about 850 pounds.

When on the road this outfit rides almost as high as the top of your automobile, but the

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front end is V-shaped and hence does not necessarily give more wind resistance than a trailer packing down lower. It is a camp that you may depend upon as dust-proof, bug-proof, and dry.

- Recently the author and his family, including the two small children, slept in this outfit during a period of rainy weather that lasted over a month and all but took the joy out of autocamping. However, day and night, we ate, lived, and slept in a bone-dry place inside this outfit.

The Motorbungalo Junior is a lighter model made by the Adams firm, folding down flat and compact, but having only a canvas roofing over your head, as do all other standard trailers. It has the kitchenette, wardrobe space, screened windows, and two comfortable double spring beds. There is a curtain arrangement so that you can divide camp into two bedchambers if you like. The basic trailer is the same as for the regular Motorbungalo, which was originally designed by Glenn H. Curtiss and is today manufactured in the original airplane factories of the inventor. Both styles of Motorbungalo trailers may be stripped of their camping outfits and used as a commercial trailer the year round when you don't want to camp. The body has a drop tail gate.

The Douglas De Luxe trailer is most surprising, being a sort of cabinet on a chassis, which cabinet tips off to open up into a most complete roadside home. When this cabinet affair is opened out you have a shed tent 8x12 feet, with beds hanging against the wall, in the

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daytime out of your way. The tenting is of 10-ounce duck and there are two screened and storm-proof windows. Now for the surprise! What was once the floor and sides of the trailer stands upright in camp as a wall of wood having in its center a complete camp table, dresser, and kitchen cabinet. The beds with this outfit are single, one above the other on a frame attached to the wall of the room. What will they build next? That's all you can gasp.

And the Carefree Folding Tourist Home looks like the answer to the above question. This is neither a camping trailer exactly, nor is it really a camping car body. You might call it a camping unit, which may be attached to the running board of your car, or to the rear of a coupé or runabout, or carried in a small truck. When folded you find a cabinet of wood that is about 9x40x54 inches. The front of the cabinet hinges up horizontally to form part of the camp roof, a shed tent comes forth to make the rest of your camp home, and there is a cot bed 4x6 feet, with plenty of dressing and living room besides.

The models of this outfit for runabout, coupé, and small truck are somewhat different in shape and more elaborate in construction than the running board model above described. For this model we find a cabinet 24x44x45 inches. The rear end of the cabinet hinges down flat with the bottom, and the top hinges to an angle of about 45 degrees, thus forming part of the roof. A canvas tent appears to make the rest of the camp right on the rear of your automobile or truck. There is a table with this outfit about 27x44

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inches in size. The bed is 40x78 inches. This outfit weighs 140 pounds.

The Chenango trailer weighs 850 pounds. The frame work for the tent is steel tubing; the tent does not come to the ground at the sides; and the Chenango boasts itself to be more of a bungalow home than a tent camp. When packed for the road this outfit is practically as high as your car. It has its food compartment at the front end and is accessible only when the tent is up.

The Curtis trailer differs in that its two beds do not fold down flat and do not when collapsed come in contact with each other. They stand vertical when the outfit is closed, forming two walls and leaving a great deal of packing space between them. This space in the Curtis is 48 inches high by 44 inches wide. The tent walls do come clear to the ground and the Curtis is a well-put-together unit.

The Auto-Tour trailer follows the accepted lines of the two-wheel outfit and adds a few articles to its standard equipment, like blankets, camp stools, and incidentals. The tent over this outfit reaches to the ground.

The Kamprite trailer differs a little in that the roof is not peaked, but flat where you expect the ridge, something the same as your auto top. It boasts of a floor mat and hammocks for clothing. The tent covering of the Kamprite does not extend below the body.

The standard Gypsy Trail trailing outfit is unique in that it offers only *single beds* and no ice box whatever. It has a fly 21 feet long that

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extends over the top of the trailer and your automobile in front. The wooden body of this outfit is 4x7 feet. The wheels take 30x3-inch tires, having roller bearings, and two steel springs. The canvas tenting is 8-ounce double fill army duck. Four adjustable legs extend to the ground at each corner of the trailer body. This company offers two extras—a curtain extended as a porch, and a lean-to tent. Trailer, lean-to tent, and fly over all—including car—make fine camp.

With the Auto-Kamp trailer it is an easy task to set up the complete trailer autocamp and be ready for housekeeping in ten minutes from the time the engine is switched off. The tent of this trailer is of heavy khaki-colored duck, treated with genuine Preservo, and absolutely water-proof. It forms over its frame a wall style tent 7x12 feet, having two storm-proof bobbinette windows. The frame is of wood, stained and varnished and well ironed and socketed.

The trailer selected for autocamping will depend to a great extent on your personal liking for incidental special features on one or another and your special requirements. With all of them you will add extra equipment to suit your notions. The outfits having the tent clear to the ground are somewhat warmer quarters in which to sleep, but in either case you will want plenty of bedding under you. Sleeping bags we have found most excellent for use with our trailing outfits.

In fair weather the trailer will not be made

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your dining room, for everybody will likely prefer to get out into the Big Dining room of the outdoors. Nor will it be made under fair skies your living room, smoking room, or parlor. It will be your kitchen and your bedroom under all conditions and in bad weather it will be a whole apartment of rooms all in one.

One need never hesitate about using the trailer because of the gasoline and tire expense. Under tests we have found that perhaps once in twenty gallons our trailer will take an extra gallon for itself. And on identical trips with a trailer behind and a car outfit loaded in the car there was absolutely no perceptible difference in the fuel cost. I cannot find any difference in tire punishment with the load on or behind the car.

There is one thing that will bother at first, and that is backing with your trailer. This has been the big and fatal problem to the builders of trailers, but it has been solved. Even when the draw bar was not such that it permitted backing the outfit where you wanted it to go, the times you backed up were far and few between and in the last extremity you could unhitch the trailer and turn it by hand. But this is not necessary today. The first thing in backing is to get the trailer going straight from the start or in making it turn the way you want it to go. Once you have it started as you want it, you will find it easily controlled with the steering wheel. In backing round a corner you first throw the front wheels *opposite* to what you would do if there was no trailer. This starts the trailer round the corner and then the wheels are thrown

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the other way and your car follows. It is not half as hard as it sounds and only needs common sense and patience at first.

As time goes on one finds many autocampers who are building or buying automobile camping bodies to place upon one kind of chassis or another. A great many of these have been home-made affairs that were not really satisfactory, or else small trucks, like the Reo Speed Wagon, have been slightly remodeled for the purpose of making a home on wheels for camping the highways.

There are now a very few camping bodies manufactured that the author can highly recommend, one of which is the Kampkar. This outfit resembles in appearance and weight the Ford sedan, and it is indeed mounted on a Ford T chassis. The body is made from seasoned poplar, all joints have pressed steel corner angles, panels and doors are $\frac{3}{8}$ -inch material, and the body is light in weight while being sturdy.

The Kampkar has a 14-gallon gasoline tank, an 8-gallon water tank, ice box, folding table 22x49 inches, two-burner gasoline stove, Wear-ever cooking utensils in family size and numbers, table ware, electric lights, and an instrument board with map pockets. The two beds extended are 42x75 inches with 4-inch Marshall Springs and 2-inch padding. There are lockers almost everywhere about this outfit. The front seats are 22x42 inches with same springs and padding as listed for beds. The floor space (beds down) is 22x57 inches, and the body width closed is 63 inches while the length is 9 feet.

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The top is oiled duck and the sides allow backs of seats to swing out to form beds, each side protected by water-proof canvas. The weight is 600 pounds.

Another good camp car body is the Livabout, which appears as a neat sedan on the road, but when opened boasts ice box, gasoline stove, food compartment, cupboard, kitchen table, dining table, bathtub, drawers for toilet articles, emergency toilet, hot and cold running water, and two clothes closets. When not used for camping, the cabinets holding the outing equipment are readily removed, and you have either a passenger car or a light truck, as you please.

CHAPTER XIII

The Camera for Autocamping Pictures

AFTER more than a score of years chumming with a camera on my outdoor adventures into big and small game country, on trout and bass streams, and on camping and tramping trips, the author has come to include the picture-making machine as a prime essential part of his equipment for autocamping. There is infinite satisfaction in having for all years to come a story-telling series of pictures of your trip over week-ends, or whole weeks, or maybe a month in the open. Pictures should be almost more highly prized possessions of the autocamper than any other thing, unless we make the one exception of health. Pictures neatly assembled in an album with dainty corner fasteners of the sticker type, arranged in chronological order, will serve to make your trip last in permanent panorama for not only yourself and the family, but for the entertainment of your friends.

There is a potent lure in pictures. Children record on plastic minds the things they see in pictures more easily than anything else, not excepting occupational education. The picture habit has us Americans gripped like a doped drug addict. Witness the movies, the pictures used in advertising, illustrated books, news-

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papers, magazines, and folders. Truly we live in a Picture Age.

A good camera should be carefully selected for your autocamping trip, if you already do not have such an article. The box camera is almost out of the question because it is like using a one-cylinder car where you ought to have six cylinders, or four at least.

By all means select a camera with an *anastigmat* lens, which is almost fifty percent better than its nearest rivals, the rapid rectilinear (often called simply R. R.), or the rapid symmetrical. And the anastigmat is several hundred percent better than the achromatic or the meniscus lenses, used only in the cheap box camera and lowest grade folding outfit.

A few years ago the anastigmat lens was very expensive, but today several American firms are making these highest grade glasses and the cost is within the reach of anybody who autocamps. In fact the relative cost of the best type of lenses used on various machines will depend more on the size you buy than the kind of lens selected, the larger F. 4.5 lens naturally costing more than the F. 6.3 or the smaller F. 7.5. The "F." stands for Focal System and means the relative aperture opening according to the distance of lens from sensitive film. Thus, a camera with three and one-half inch focal length (distance of lens from film with camera set 100 ft.), and the diameter of aperture one-half inch is said to be F. 7. This simply means that the relation of aperture and focal length is 1 to 7.

The larger opening of F. 4.5 is more efficient

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and a higher priced lens simply because it will require less time to take the picture under the same conditions, than with a small-opening camera, say the F. 7.5. It is like yourself standing in a room with one window. If the curtain is raised the amount of light admitted depends upon the size of the window. A small window naturally gives full illumination and a smaller one poorer illumination.

In the camera the sensitive film is in the place of your eye in the room. Hence you can readily see why the largest lens that your pocket book can stand is the one for your camera. Generally the same make of camera may be had with at least three openings, or aperture sizes: the F. 7.5, F. 6.3, and F. 4.5.

All lenses are marked with certain figures, and openings so marked have the same exposure value regardless of the actual size of the opening. Recently two friends came to me with their machines, complaining that one or the other must have a camera with incorrect markings since the two did not appear the same in size. F. 8 on the postcard camera was *actually* larger than the F. 8 on the $2\frac{1}{4} \times 3\frac{1}{4}$ machine, but just the same each has the same *relative value*, each admitting the *same amount* of light to the film.

Just the same the anastigmat lens will permit a better picture than any other type, aperture values the same for both. Remember that a large lens window taking a 5x7 picture is much slower than the same *actual* size opening working for a $2\frac{1}{4} \times 3\frac{1}{4}$ picture. This is mainly for the reason that the focal distance (distance of

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lens from sensitive plate) is greater in the case of the larger picture. It is something like trying to read your newspaper fifteen feet from the light compared with reading it only a few feet from the same light. The inference is obvious.

An axiom to remember will be that a large aperture with small picture surface to cover, other things being equal, is much more efficient than the same lens opening with a large picture. In other words you might better buy a large aperture anastigmat lens to take $2\frac{1}{4} \times 3\frac{1}{4}$ pictures than to put your money into the same lens to take a larger size picture. To reduce it down more simply yet, the smaller camera takes a better picture than the larger machine, and is a far superior and more efficient machine.

Most pictures used for illustrating purposes today are enlargements from small negatives (the negative is the developed film from which positive prints are made). Practically every illustration in this book was made from an enlargement, the pictures having been taken with the Ansco Vest Pocket Speedex No. 3, apertured F. 4.5 with Spencer Anastigmat lens, and making negatives $2\frac{1}{4} \times 3\frac{1}{4}$. This size film negative with this particular machine allows any size enlargement, and an 8x10 enlargement cannot readily be distinguished from the same size contact print.

In more than twenty years of experimenting with outdoor exposures the author has used practically every American make of camera and several imported machines, first using larger sizes and gradually finding from Father Ex-

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perience that the ideal camping camera was the little fellow. The small camera is easy to pack, light to carry, convenient to operate, inexpensive to maintain, and a much more speedy camera than its larger brothers. You can have only the better films enlarged and thus spend your actual picture money only for those views that you know are excellent.

With the V-P Speedex No. 3, lensed as described, you can take snap-shot pictures in shade and on dark (cloudy) days. This means that unless the light is very poor or the shade very deep, you need no tripod, but may make the exposures with camera in hand, which in itself is a boon to the autocamper. This camera for indoor pictures has two tripod sockets, one for taking the picture each way of the rectangular film.

Not only will the Speedex No. 3 get your pictures under any light condition between nine in the morning and three or four in the afternoon on summer days, but you don't have to tell your subjects to "hold still." If baby insists on kicking, let her kick, indeed much the better way is to steal out beside your roadside camp and snap the picture when everybody is unconscious of the act. Thus you get natural pictures. Somehow we all dislike very much the posed picture when everybody "got set" for their picture.

On the Ansco V-P Speedex No. 3 will be found the following aperture openings *marked on top* of the lens drum where you can see them when looking into your finder: F. 4.5, 5.6, 8, 11.3, 16, 22.6, and 32. These are the window sizes

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through which you may admit light upon the film. Roughly each stop (aperture) has just half the exposure value of the one before it. Suppose you know that a bright sky will require the F. 11 stop with $1/25$ second shutter movement. Now perhaps some subject in your picture will be moving rapidly, perhaps Sir Autocamper chopping wood. To get a clear picture of the swinging ax will require a greater speed than $1/25$ second. So by opening the lens to the next larger stop, F. 8, you may increase the shutter speed to $1/50$ second. The same *amount* of light will get to your film. But if the subject in the picture should be moving very rapidly you might need to use the next larger stop and speed the shutter to $1/100$ second. In all three cases the *very same amount* of light would get to your film, but with a difference in speed.

It is admitted that snap-shot pictures are much easier for the amateur than time exposures, which the professional sometimes seems to favor. With the very speedy Speedex No. 3, using the special rapid Ansco Speedex films, you have but to learn what is the right stop at $1/25$ second, and then it is easy to decide how fast the lens will need to work to stop the motion of the subjects in your picture and use the proper aperture, as described in the foregoing paragraph.

But aperture openings on your camera are for other reasons than merely acting as windows to allow light to enter. The various size openings have a great deal to do with the *depth of focus* of your picture. Depth of focus is a bug-

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bear to the amateur that like a medieval myth, once you understand it, fades into scientific proportions. Suppose you were taking a picture of your camp along the roadside. In the foreground are chairs and table, in the center is the tent, and in the background a mountain or landscape. Can you get a picture that will have everything in focus, that is clear and sharp? You can, if your depth of focus is "deep" enough to enclose within its plane the table a few feet away and the tent with its background perhaps a hundred feet away.

It is a to-be-remembered axiom that the *smaller* the opening used on your camera, the *deeper* the focus.

In other words, suppose you set your camera for 25 feet and use the largest opening to make the picture of your camp. The table in the foreground will likely be blurred. Leave the camera set at the same place and make the picture with stop set to F. 16 or 22 and the result will be that everything is in focus.

You must remember that the small stops require relatively longer exposures. Hence to get such a picture you may need to set the camera on something substantial that will not vibrate and take a short time exposure. The Speedex No. 3 shutter will make time exposures for you at 1 second, $\frac{1}{2}$ second, or $\frac{1}{5}$ second; and for longer exposures you may set the shutter at T (time) and make as long an exposure as is necessary. Also there is a third type of time exposure that may be taken with this camera, as well as most others, and that is marked B

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(bulb) on the shutter. With the time exposure one click opens the shutter and it stays open until another pressure on the release. With the bulb exposure one pressure alone takes the picture, for you press the release, holding it compressed the length of time you want the exposure, for simply releasing the pressure closes the shutter.

Focus and depth of focus are two different but closely related subjects. We say an object is in focus when a clear image of it is recorded on the film. Depth of focus depends on the *distance apart* things may be in your picture and still give a sharp image, the distance being considered along a straight line extended from film and lens out through the scene you are photographing. To make it easy for you to use the right aperture in getting everything clearly in focus with the Speedex No. 3, there is a scale on the bed of the camera for convenient reference. Here it is:

DEPTH OF FOCUS SCALE, ANSCO V-P SPEEDEX
No. 3

100 ft.	36' inf.	32' inf.	24' inf.	19' inf.	14' inf.
25 ft.	17.3-44	16.3-55	14-150	12-inf.	9.7-inf.
10 ft.	8.5-12.0	8.2-12.8	7.6-14.5	6.9-17.5	6.1-26
6 ft.	5.4-6.7	5.3-6.9	5-7.3	4.7-8	4.3-9.6
4 ft.	3.7-4.3	3.7-4.4	3.5-4.5	3.4-4.8	3.1-5.3
	F. 4.5	F. 5.6	F. 8	F. 11	F. 16

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This chart may appear complicated at first glance, about as difficult as the whole alphabet once looked to you many years ago. But once understood this Depth of Focus Scale will be as simple as your alphabet, in fact, this chart is the ABC of amateur photography. To thoroughly understand and know how to use it will almost surely spell successful pictures.

The explanation is most simple. Note that at the left are figures one below the other, 100 ft. down to 4 ft. This refers to the distance you stand from the central portion of the scene you are photographing. If you are roughly 25 feet, then set the thumb screw on your camera which moves the lens of your machine to the 25-foot mark.

Next you consider light conditions, which means you decide what stop or aperture opening to use. Suppose the light is bright and the sun strikes on your camp scene. Experience with this camera will tell you that F. 11 will get the picture with the shutter at $1/25$ second. The next question is: Will everything be in focus? So you look at the Depth of Focus scale, locate the 25 feet row of figures and run your finger over until you are in the column above F. 11 (the aperture openings are the lower row of figures). At the junction of the row of figures opposite 25 feet with the column above F. 11 you find "12-inf." This means that everything in your pictures will be in sharp focus from a distance of 12 feet in front of your camera to infinity. If nothing is closer to you than twelve

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feet you may take the picture at F. 11 with shutter speed $1/25$ second.

By this simple scale you will know whether to set your camera at 25 feet or 10 feet, whether to use stop F. 11 or one smaller to get everything in the depth of focus plane, and so you will know what speed shutter to use. Guesswork is eliminated with this Depth of Focus scale on the bed of your camera.

A word should be said about the shutter. On the Speedex No. 3 you can read the shutter and turn to the location desired while looking at the top of the camera, where you will naturally be viewing the image in your finder. This shutter, as on all first-class cameras, is speeded up to $1/300$ second for stopping very rapid motion. With this little 19-ounce camera you can go into the woods and do with its combined speedy shutter and lens what a 7- or 11-pound reflecting camera may do. Likely for press work and other places where weight and bulk are no consideration there is no better camera than the reflecting machine, and the Graflex stands without a peer for this purpose. I have one good woodsman and camp buddy who takes his Graflex along on autocamping trips.

But where weight and compactness are prime considerations, then the light camera, which may be carried in a holster on the belt, is the thing. And with a camera so built that you get practically as much speed as any machine manufactured, the Ansco Vest Pocket Speedex No. 3 is the ideal autocamping picture-making machine for the amateur. The Eastman Special No. 1 is

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another machine in the same category, but lacks several features of the Ansco, among them the ABC of the amateur photographer, the Depth of Focus Scale.

Other good sizes of camera for the auto-camper's special needs are the $1\frac{5}{8} \times 2\frac{1}{2}$, the $2\frac{1}{4} \times 4\frac{1}{4}$, the $2\frac{7}{8} \times 4\frac{7}{8}$, the $3\frac{1}{4} \times 5\frac{1}{2}$ (postcard size), and the old standard 4×5 . Remember the smaller the camera the shorter the focus of the lens and consequently the greater the depth of focus of the resultant picture. With the three-and-one-half-inch focus camera it is a simple matter to get a picture that "is all in focus" in deep shade or on cloudy days with the aperture F. 4.5; while with a seven-inch focus and the F. 4.5 opening, the depth of focus is so very narrow that snap-shot work is out of the question, at least with anything but a reflecting camera. All things favor the sensible small-size camera with anastigmat lens and the Direct View Finder, which comes accessory to the Speedex if ordered, making an outfit almost equal to the reflecting machine.

Another point in favor of the Speedex No. 3 with anastigmat F. 4.5 lens is the fact that this camera may be used right along in sunshine or on bright light days without doing any focusing, that it is so versatile that it may be used as a *fixed focus* camera. Simply keep your thumb-lever set at 25 feet, which is automatically kept locked there when the front is closed or opened, set the aperture lever at F. 16, and the shutter at $1/25$ second. Then you can take any picture with positive assurance that everything will be

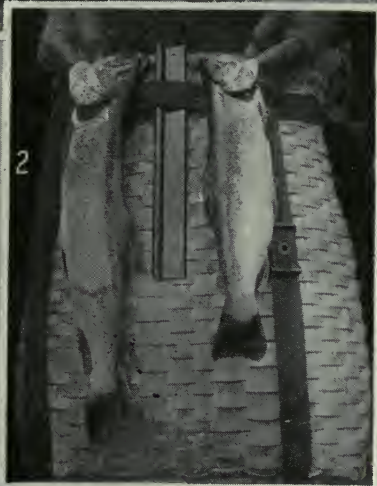
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in focus everywhere in your picture. If a sudden emergency arises that you want to photograph, you merely open the camera, look through the Direct View Finder, and press the release. No matter what the scene, everything will be in sharp focus and your picture will be clear and snappy. It was with the camera set thus at fixed focus that a woman in the party snapped a wild deer from the automobile along a Maine highway.

The more you use a camera the more you will find that you really use the average speeds and the medium openings for almost all your pictures. The larger openings are simply reserve power when the light is very poor. The smaller apertures are only reserved for times when an exceedingly deep depth of focus is required. A highly speeded shutter is necessary only when extremely rapid motion must be stopped. But just these things that are out of the ordinary and perhaps a bit abnormal, will constantly present themselves to the outdoor photographer, and lucky indeed is that amateur who has a camera with great reserve power.

Films should be used by all means on the auto-camping excursions because dry plates, being supported by glass, are heavy and extremely fragile, while the film, backed by celluloid is light and practically unbreakable. Film packs are not so successful as the roll film, because they sometimes do not pull around well and again the operation of drawing them into place puts fine scratches across the face of the film.

The average photographer will want a tripod,



- 1 Wild Deer snapped from automobile
- 2 Camera record of autocamper's trout fishing

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and if your camera is of the slower type this will be necessary on your autocamping trips; but with the speedier outfits with F. 4.5 lens opening you may leave the tripod at home and be sure to get the pictures you want. If a few exposures need to be made on time, set the camera on some stable surface and make the exposure.

If you have trouble with proper exposures at the start you should buy an exposure meter, which will practically eliminate all light value guesstimation. Any of the following are good exposure meters: Milner, Harvey, Wynne, Watkins, and Burt. The intrinsic value of the exposure meter is, not to tell you exactly how long to expose, but to tell you *not to under expose*. I find the Milner best.

When taking a picture you should frequently pay little attention to the light and well illuminated places, and expose for the dark shadows. This will result in *over-exposed* films. My film developer grumbles because I over-expose almost everything because I am after the shaded places in my scene. Then my enlarger growls because my negatives are so dense that it takes him four times as long to make each picture. But the picture tells the story and it may be set down as a cardinal rule that you ought rather to over-expose than under-time your pictures. In fact the film makers today are purposely making a film that will stand over-exposure in the high lights, while you are giving the dark places proper time. Look at pictures taken not so many years ago and you will see very "chalky" prints, the white part very white and the dark

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very black, with little detail shown in the shadow. Or if the details show in the dark parts of the picture, the faces of the folks in the picture are so far over-exposed as to make them almost unrecognizable.

The closer you are to the object you are photographing, the more accurate must be your focus to get a clear picture. The closer you are to your moving subject, the more speedily your lens must be shuttered to stop the motion. Very speedy events, like rapidly moving animals or birds or automobiles or boats, should never be recorded on your film closer than 25 feet. This may make your object on the negative very small but your enlargements will throw up the clear image to the desired size.

Another argument for the small-size camera may be here recorded in the light of what has been explained. That is, that the smaller, short-focus camera will stop motion with a slower shutter than a larger, long-focus camera. With your Speedex you can stop all ordinary motion at $1/25$ second, such as packing up camp, ordinary bodily motions, the walk of animals; while a longer-focus machine might require $1/50$ second to do the same feat of stopping motion.

One of the most important paragraphs in the whole chapter will be recorded in this sentence: Be sure to form the habit of turning your film to the next position at once after the exposure is made without exception, or else that much lamented epidemic will start up like wildfire, which is known and revered by all photographers

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as the "double exposure," or taking two pictures on one section of the film.

Before making the exposure of your scene, try several positions to find the best biew. Just merely stepping out and snapping the picture will invariably result in very mediocre pictures. Take a little time to find the angle for comprehending your scene where everything that you want prominent in the picture will show up at its best.

Remember that in looking at a picture your eye always covers the upper left-hand corner first, swinging from there to the other points of the view. See that your upper left hand corner carries something vital to the "atmosphere" of the picture when possible. Never center a single subject right in the center of your picture if this can be avoided. In a landscape the better balance is two-thirds foreground and one-third background.

The last important thing about making your pictures will be to try hard for story-telling views. Have the people in the picture eating or talking or packing or something—anything but posing to have their pictures taken. This is not an easy thing to force your subjects to do, for the unconscious personal ego seems to bubble over when somebody gets out the camera.

CHAPTER XIV

The Doctor in Camp

A MOTORING vacation is conducive to physical well-being, for outdoors one gets the oxygen he needs, the active exercise gives him the needed change from the sedentary life, the change of scenery buoys up his spirits, and the speeding up of virility makes him glad he is alive. The open road is a great natural sanitarium.

The pleasant routine of an autocamping vacation is sometimes broken into by some emergency in which health and even life are at stake, and to avoid the penalty of neglect everyone should be ready to apply first aid in accidents and to treat the more common ills. Self-doctoring has well defined limitations, and when one is within the reach of a doctor the seriousness of the case will determine when he should be consulted. The author has found the Security First-Aid Kit to be all that its well chosen name implies, and its presence on our autocamping excursions gives the feeling of a first-class insurance policy—that of security.

First aid to the injured is not so difficult as some might suppose and its utility far overbalances any exertion one may put forth to learn the rudiments of good campcraftmanship. It behooves every camper who will get a mile

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from home to learn the most simple principles of first-aid methods and to have with him a fully equipped first-aid kit. Besides a knowledge of fundamentals, there ought to be at his command a summary in brief form of what to do in emergency, and such directions come with the Security Kit.

The primary essential in caring for the sick or the afflicted is *to avoid panic*. That is the cardinal first rule. Most accidents at first sight appear very serious, but turn out to be trifling. Panic at such times prevents one from doing the little things he ought to do at the very start when quick action counts most. Avoid panic! Have that principle embedded deeply in your subconscious mind.

The Security First-Aid Kit comes in a lacquered heavy tin bond box that is 6x12x2½ inches and fits into a side pocket of the car, ready for instant use. If you do not care for a ready-filled first-aid kit, then you may assemble one of your own. The author, however, can recommend the Security because he uses it and because he has found that behind it is a practicing physician of high standing, who is himself an autocamper, having recently spent one full year touring. Hence a kit arranged by so high an authority will be sure to be right. The right first-aid kit for the motorist should contain the following medical and surgical equipment:

Cathartic Pills. Your favorite kind is the one to take. Hinkles or compound cathartic are good. Most cases of sickness need a strong laxative in the initial treatment and best at bedtime.

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Never eat constipating food and believe you can prevent "tying up" the bowels, for this in itself constitutes disease, and poisoning of the whole system through constipation is most prevalent.

Intestinal Antiseptic Tablets. In cramps or diarrhoea use first a strong laxative, then the intestinal pills, one every two hours.

Grip Tablets. Aspirin, 5 grains in each tablet. One each hour until four are taken, then one every three hours in grippe, colds, pain, headache, fever, and injury.

Mosquito Dope. Best carried in a metal flask or pocket oiler. If you mix your own have the druggist compound: oil citronella, 1 ounce; spirits camphor, 1 ounce; oil cedar, $\frac{1}{2}$ ounce. Label, "For External Use."

Halazone Tablets. Used to purify the drinking water supply. Water boiled furiously for half an hour is safe. Halazone is used, one tablet to a quart of water, and after twenty minutes the contaminated water is safe to use.

Absorbent cotton. One ounce will be sufficient. This is useful as a padding in dressing wounds. Also when drinking water is questionable, purify it by boiling for half an hour, then cool and filter through absorbent cotton held in cleansed hands.

Ointment. Any simple kind will do. Boric Acid Ointment or Carbolized Vaseline is good. It is useful for cracking lips, dryness of the skin, and is excellent for burns.

Analgesic Balm. A mixture of camphor, menthol, and eucalyptol in an ointment base

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used as a liniment; rubbed on the skin in sprains, bruises, rheumatism and neuralgia.

Adhesive Plaster. A cloth with an adhesive on one side used as a covering over chafed heels and blisters, holding wound edges together and dressings in place. A roll of one inch by five yards of Zinc Oxide adhesive tape is right. About the car it may serve in emergency for insulating tape.

Bichloride of Mercury Tablets. Mark "Poison," unless purchased in a ready-prepared kit, when it will be so marked. One tablet to a quart of boiled water makes a solution for keeping dressings wet and for cleansing wounds.

Ampoules of Aromatic Spirits Ammonia. Vials will come wrapped in cotton, and for use are broken and the saturated cotton held near the nose to inhale in fainting and shock from accident. This is a powerful and safe stimulant, used by the Red Cross and the armies of the world.

Wound Dressing. A square yard of sterilized surgeon's gauze should be kept in waxed paper and enclosed in a sealed carton. It is applied to wounds to protect them. It absorbs discharges and stands guard against dirt. Wounds should be cleansed by washing with hot, soapy water and cotton; then the bichloride solution used; and when dressed the gauze applied.

Two-inch Roller Bandage.

Splinter Forceps.

Lance.

This will constitute the right emergency first-aid kit from both the medical and the

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surgical standpoint. Now let us consider simple medical treatment.

Colds. Grippe, cold, or influenza is a common complaint after chilling of the body surface, as after a rain, or a cold night sleeping in mountain altitudes. Woolen underclothing, recommended in the chapter on clothing, will be the preventive and the safeguard in warding off colds. If afflicted, take the laxative and aspirin.

Diarrhæa. Bad water, poor food, fresh fruits, or chilling of the stomach may cause this. An extra covering of woolen, such as an abdominal band, will help to equalize the temperature, and all food should be stopped for a day. Plenty of rest, lying down preferred, should be indulged in to give the stomach and bowels rest. When you are sure water is not the cause, drink a great deal of it. Clean out the bowels well and use the intestinal antiseptic tablets. For fever use aspirin.

Heat Exhaustion. This is characterized by a pale face, the skin is sweaty and relief is afforded by stimulating with aromatic spirits of ammonia and hot drinks, but do not bathe the skin.

Sunstroke. The symptoms are lack of perspiration, hot skin, the face red, and the head feels a great pressure. Get to a cool, dry place and lie down, loosen the clothing and bathe the face and chest and wrists in cold water and drink as much water as wanted.

Poison Ivy. While some are easily poisoned by ivy, others seem immune. Cotton should be saturated in an alcoholic solution of lead and bandaged over the afflicted areas or used as a

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wash on the skin. (This alcoholic solution of lead has not been included in the list of first-aid equipment.)

Now we may consider the more simple surgical treatments that may come up for first-aid care.

Wounds. For example let us take an ax wound on the arch of the foot, which will involve treatment for all open wounds. First the bleeding must be stopped, and appliance of the fingers or applications of very hot water with cotton over the wound will check bleeding. Once a clot is formed, do not destroy it. Apply the gauze dressing firmly, after painting the wound with iodine, and hold in place with adhesive tape. In severe and deep cuts the bleeding is from an artery and may be told because it comes in red spurts. From a vein the flow is steady and the color darker. First place the limb above the level of the heart, with patient lying down. Remove the clothing, place a stone or hard object over the wound from above, tie a bandage over it and insert a stick through the loop, twisting same until bleeding gradually stops. Then release the pressure of the twisted bandage and dress with gauze and bandage.

Infected Wounds. These are inflamed by the action of germs and there is given off a discharge of yellowish pus. The signs are local pain, redness, swelling, and the parts feel hot. Inflamed wounds should have the dressings kept wet with boiled water, either with or without the bichloride tablets added. Dress such wounds daily, or until there is no sign of inflammation, then

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cleanse and put on a dry gauze dressing. Pus in a wound should have plenty of room to get to the surface and out, and it may be necessary to cut a larger opening with a boiled lance.

Abscesses. Boils, felons, and infections from a bruise or a scratch, and showing the signs of inflammation should be treated at once. Do not waste time by poulticing to soften and "ripen," but cut into the pus pocket as soon as the hard swelling with redness and heat appears. Boil the lance, or other sharp knife, paint the area with iodine, cutting deeply where the swelling is greatest. Pus will drain itself, but it will be well to keep the wound open by inserting a small piece of coiled gauze into the cut. The patient feels better at once when the tension is relieved.

Gunshot Wounds. Army surgeons agree that the least meddling with bullet or shot wounds the better. The danger in such a wound is from infection, bleeding, and the shock to the nervous system. Stop bleeding of such wounds by plugging with gauze. Cleanse the entrance and exit wound (if any) with iodine. Apply the surgical gauze and stimulate for shock. (See Fractures.)

Fractures. A fracture is a severe accident and one that will need the aid of the physician, if possible. Set the fracture as near as possible, kneading the ends of the break into place with the fingers. Apply splints and wrap with soft cloth to act as a cushion for the wooden or bark splints which are placed around the broken part to hold the bones in place. If swollen, apply

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cold water constantly on the cloths, and if infected treat as already described for Infected Wounds. Treat shock, if present; symptoms being a cold, clammy skin, staring eyes, very little evidence of pain, and great exhaustion. Inhale aromatic spirits of ammonia, lay patient on his back, lower his head and raise his feet higher than his head, wrap him in hot blankets and place him in bed with hot stones wrapped in cloth on his stomach, sprinkle cold water in his face, and rub the swollen limbs toward the heart. Give plenty of hot, stimulating drinks, such as steaming coffee.

Sprains. Sprains mean the tearing or bruising of ligaments and rest is the first essential. Hot or cold or alternating hot and cold applications to the skin give relief and reduce the swelling. When the swelling is down put on the adhesive plaster splint. Prepare a dozen adhesive plaster strips 1x8 inches and for ankle sprains apply one over heel and up over the ankle, the next being placed back of the heel and down toward the toes; alternating strips are then overlapped over the ones first put on, gradually covering the ankle toward the toes. Put these on snugly with the foot held somewhat flexed.

Fish Hook in Flesh. This is best removed by running the barb on through the flesh and skin and cutting off the shank with pliers, taking out the barb one way and the shank the other.

Snake Bite. The chance of an autocamper being afflicted with a snake bite is very little, popular publicity to the contrary. The first thing, when bitten, is to ascertain if the snake is

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really poisonous. Such a snake is characterized by a triangular head, a pit back of the nostril, a heavy jaw, and the pupil of the eye slit-like, rather than round. If the poison does not get into the blood, little harm will be done. To prevent the poison being carried all over the body by the blood, tie a cloth about the limb between the bite and trunk, twisting it to stop for intervals the blood stream. Next destroy the poison by lancing the fang puncture and get free bleeding, rubbing on a few crystals of potassium permanganate and dressing with gauze. Stimulate the system with strong coffee, never with alcohol, wrap patient in warm blankets, and give a laxative of strength. Have the patient drink plenty of water. (If you go into dangerous snake country, add permanganate to your outfit.)

Drowning. A person who is apparently lifeless may yet revive if the proper method of care is employed, and he should be given the benefit of the doubt. Get to work at once and keep at it for hours, first draining the water from the lungs by placing the patient on his face, clasping your hands under his waist, raising the body suspended from the middle. Repeat this raising-up movement several times. The resuscitation method used by the arms is the best, and the Schaefer Method is as follows: Place patient on stomach, arms in front of head fully extended, with head toward one side, resting on cheek. Kneel astride his body at his thighs and place the palms of your hands on each side of his lowest ribs so that the little finger just covers

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the last, or 12th, rib. The hands must be away from the backbone near the sides. Hold your arms straight out and rigid and throw the weight of your body forward, throwing your weight on his chest, thus compressing the lungs and further emptying them. Take about three seconds to press the lungs and then suddenly release. Rest two seconds and then repeat the process, making about twelve emptyings of the lungs per minute. When the patient shows signs of life, stimulate with aromatic spirits of ammonia and hot coffee and wrap well in warm blankets to keep him comfortable. If the patient has been submerged in water less than two minutes, he stands a good chance of recovery. Never give up. Work at least two hours, no matter how slight the chance of recovery.

Personal hygiene should be carefully considered in autocamp life. Highly important is the proper elimination of waste matter, the accumulation amounting to much more because of the change to outdoor air and to different food and more of it. A good laxative at the start will help send off the trip propitiously.

Sudden changes of temperature are to be expected and are best guarded against by wearing woolen underclothing, even in summer, using the heavy for cold camping and light woolen for summer autocamping. For extra protection of the abdominal organs—a very important consideration—wear a band of woolen, preventing by this abdominal band many intestinal complaints.

The daily bath need not be omitted from the

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routine of camp life, although one cannot plan on a tub as at home, unless he takes with him the Gold Medal folding tub, depending on available space. Anyhow, there will be many streams and lakes that afford bathing facilities, and many of the public motor camping parks are so equipped. At least a basin of lukewarm water and a sponge may be employed.

To prevent tooth trouble, see your dentist before you start on a long trip. In traveling in desert country and in alkali country follow the cowboy style by wearing a handkerchief tied over the nose and mouth.

Sunburn can be avoided if one gradually accustoms the skin to the sun glare by covering the neck with handkerchiefs and wearing broad brimmed hats. A good treatment for sunburn is an ointment consisting of camphor, 20 grains, menthol 10 grains, and cocoa butter 1 ounce, mixed together by your druggist. Sun glare in the eyes should be prevented by amber or green goggles.

CHAPTER XV

Hunting and Fishing Equipment

HUNTING and fishing are corollary to autocamping. It is axiomatic that the autocamping avocation is becoming the most popular form of vacationing. The corollary to the axiom must be that roadside hunting and fishing are growing in favor. I have a friend who always motor camps with two hunting dogs through the month of October in his native state, even at times taking out a license to autocamp Canada. And all campers will endeavor to supply the roadside dining room now and then with fish in season.

There is some game that is never out of season in the summer even, that is at the same time edible and worth hunting. In every section there is some species of squirrel that is regarded as a public nuisance and may be shot at sight, and many are the squirrel pot-pies and squirrel fricassees that in our motor camps have aromafilled the surrounding air with appetizing invitations. Frogs' legs are protected, if at all, but a short period of the year, and make excellent eating when you camp within walking distance of water where they may be hunted. We have frequently shot woodchucks just before sundown near our autocamps, but never but once have tried to eat them. Some campers

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claim that they take out the kernels under the front arms (thyroid glands) and then the 'chuck is edible. He may be, if highly seasoned, but his meat tastes too much like the ground to suit me. But woodchucks in the East make interesting sport and they are pests that every farmer will be glad for you to shoot. Although likely the autocamper will not hunt them, it may be worth while to note that coyotes and wolves, and in many states foxes and bears, are not protected and may be shot any time.

Likely fishing is more popular than hunting for the average autocamper, because the season more frequently coincides with his vacation time. Then, too, a great many states are not so particular about non-resident fishing as they are about hunting by residents out-state. All things considered, it is far easier to catch a mess of fish in some stream along the road and near your camp than to shoot game.

Just the same, hunting equipment ought to be with every autocamping outfit. For the sake of protection alone it is worth while to carry a gun with you. The all-round gun for motor camping must be light, safe, and compact, shooting as great a variety of ammunition as possible.

For this purpose there is no weapon made that compares with the Marble Game Getter gun. This gun folds up and carries in a holster as compact as your camp ax. The stock is made of rolled sheet steel, which is nicked, and folds back under the barrels of the gun when not in use. When opened to form a gun stock it is

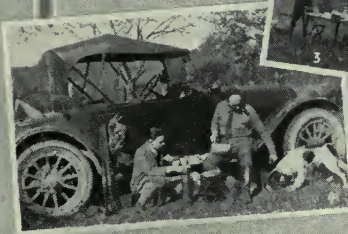
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rigid and fits exactly as well as the ordinary wood stock. On trips afield about your camp you may carry this weapon folded in your holster on your belt.

The Game Getter is a shot gun and a rifle combined in one, and it does not stop with that, for it may be made a rifle in .22-caliber or, at your will, a rifle in .44 caliber shooting a round bullet. This gun has two barrels, not side by side like the tubes of the double-barrel shotgun, but one above the other. The upper barrel will handle ammunition in .22 long, .22 short, or .22 long rifle; the long—and the long rifle is preferable even for target practice—being more accurate and burning a better grade of powder. The lower barrel will shoot shot shells of .410 gauge, or .44-40 round ball ammunition.

Hence the Game Getter will give you greater versatility than any other gun, and the auto-camper must carry only equipment that serves several purposes when this is possible. The .22 bullets will get squirrels and rabbits, the .410 shot shells will shoot partridges, quail, pheasants, rabbits, prairie chickens, and even ducks. While the .44-40 bullet will take care of bigger game up to, and including, deer. And this gun has actually killed bear and moose.

The Game Getter may be had in barrels that are 12, 15, and 18 inches in length. A unique safety feature in the new and improved Game Getter is the fact that it may be carried at neutral with both barrels loaded with absolutely no danger. The same hammer explodes both upper and lower barrel, and sets at neutral until



1 The autocamper is "some" fisherman
 2 Camping Trailer to carry game home
 3 For protection and hunting use a Game Getter

4 Prest-O-Lite cooking outfit in game fields
 5 Duck hunting with the Kampkar
 6 Autocamping in deer country

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you are ready to fire. You adjust the hammer striker to the barrel you wish to shoot at the moment you are ready. The ejector does not throw the shells entirely out, but only partially, hence if one barrel alone has been fired the loaded cartridge in the other is not thrown out. The ejector works for both barrels simultaneously. To open the breech it is necessary to simply pull back on the trigger guard.

This gun, loaded and perfectly safe, may be carried in the car pocket at the driver's elbow in the shorter barrel lengths, and is little larger than a six-shooter, revolver, or automatic pistol. Yet it is a gun that may be aimed and shot from the shoulder if you desire and carries a variety of ammunition wide enough to cover the whole gamut of game you will meet along the road.

In many states it is not legal to shoot game from your car, nor from the highway. That is, game hunting in season. It likely would not apply to killing predatory animals and those not protected by law or classed as game animals. If you are going out of your native state to camp, and want to shoot game along the roads in other states, it will be advisable to write the headquarters of such state or states and find out your rights. Frequently shooting red squirrels and frogs and animals that are nuisances is not *hunting* within the meaning of the law, and you will want to know something about this. At the end of this chapter will be found a list of state officials to whom you should write, if you want to shoot in their jurisdictions, to find the limitations of the law.

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Dressing your game and making it ready for the table may or may not be a distasteful task. It depends a great deal on the way in which it is done, and there is something of a knack about it that comes readily enough with a little practice.

To prepare a rabbit for the kettle, take the game to a stream of water if possible, or have a basin of water convenient. Grasp the skin at the middle of the back and cut through with your knife, making a long slit at right angles to the direction of the spine. Lay down your knife and grasp the slit on both sides by the fingers. Now pull the skin slowly and firmly toward head and rump. It will roll off easily and all hair possible should be kept from collecting on the meat. Next cut off the feet and head. Then slit from throat along the belly to the tail, slipping out the entrails and burning or burying them with the skin and feet. Wash the carcass and cut it up. The two rear hams and front legs are first cut free, then the trunk is severed into four equal pieces. Put the meat, washed clean, in cold water and sprinkle in a handful of salt. Allowing it to soak a few hours will bleach and draw out the blood from the meat. Be sure that the filmy covering on the meat of the rabbit is removed. It is now ready for parboiling and cooking, and rabbit rightly done cannot readily be distinguished from chicken.

The same procedure will take care of small game.

In dressing game birds it is often preferable

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to skin them. If you have scalding water convenient, then you may plunge them into a pail of it and pick the feathers. Dry picking is sometimes done and this is not a hard job if the bird has just been killed.

To draw a bird, cut off the head, and legs at the first joint. Make a lengthwise incision from breastbone to vent, through which the insides may be readily drawn. Wash the interior carefully with salt water and your bird is ready to roast or may be cut up for cooking other ways.

Small game that you do not want to eat at once may be carried in your ice chest or refrigerator basket. Small game makes mighty fine broiling meat. More is said of ways to cook game meat in the chapter on camp cookery and utensils.

Making fish ready for the pan is a simple task. Trout, with the exception of the Rainbow, do not need scaling, but should be scraped free from slime. Remove the vent, cut the gills free from the lower jaw and back of head, and slit from head to anal fin. Draw the inside out, pulling on the gills backward, and scrape the clotted blood from the backbone. Large trout should have head and tail and fins removed, while the small ones need not have this ceremony performed at all, but go into the pan head, eyes, tail, fins, and all but the interior, which the natives remove with a single slit of the knife.

Some fish will need skinning, if caught from exceedingly muddy water. Most of them will need scaling. This is most easily accomplished

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with Marble's folding fish knife, which has the sawtooth back to rake off the scales easily, while the blade is used for the remainder of the dressing work. The blade of this knife is 4 inches and the handle is of German silver, being a good allround outdoor pocket knife.

For dressing trout the Marble trout knife, built specially for this sole purpose, is to be strongly recommended. This same knife may be used for dressing all fish, as well as trout. This knife is about 6 inches long, blade and handle, and the end of the handle is a ring through which your little finger is inserted. The remainder of the fingers and the thumb are placed against the back of the blade and the curve of the shank. This knife may not appeal to you at first glance, but once you see how naturally it fits your hand for the greatest convenience of the work of dressing fish, you will recognize its value. The trout knife does not fold, but comes with leather bound sheath for carrying it safely in your fish basket or pack.

The Marble fish gaff will be worth consideration, if you will have fish of any size to land. This does not pierce or puncture the fish, but is the clincher type of gaff. It may be worked with one hand. Of course a landing net may be used, if you prefer, for the same purpose, and those with folding handles are best, especially with the collapsible hoop feature also.

All game and fish, as soon as killed, ought to be bled at once. This helps get rid quickly of the animal heat, makes the meat more edible, and with birds allows them to be plucked much

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more easily. All game, with the exception of that having a head worth mounting, should have the throat cut at once. A deer should be stuck at the point of the breast if the head is to be mounted. Birds that are to be eaten should have their heads chopped off, while those to be mounted should be bled by thrusting a slim knife down their throats. The throat of the fish should be cut near the gills. Bleeding game and fish as soon as it is killed will help keep the meat much longer, if you have no ice and want to preserve it some time before eating. Do not keep meat, and especially fish, in water too long, as this soaks out the flavor and spoils it for first-rate eating quality. Rather, as soon as washed, wipe it dry with a clean towel and keep in your ice box or basket. Keeping it dry and in fresh air is much better than trying to preserve meat and fish in water.

For sticking, skinning, and butchering large game the Marble Ideal or Woodcraft knife will be found excellent. These two knives will supply you with cutting tools for all the necessary needs of your roadside kitchen and culinary department. One alone will do very well, but the two are preferable because the Ideal has length, and the Woodcraft thickness, of blade.

The subject of fishing tackle presents a field that the space allotted will not cover completely, but the author has been experimenting with tackle best suited for autocamping and has an outfit that has evolved from experience. Likely you may have your own fishing outfit and this will, in most cases, be all right for your purpose.

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By all means the tackle ought to be carried in a metal tackle box. In steel rods the telescoping variety are ideal for carrying in your car and they are quickly made ready for service, suiting their length to the purposes you need them for, and depending on the number of lengths you pull out.

In split-bamboo rods the Divine will be found ideal and carry on their plush-lined foundation inside the heavy canvas cover anywhere about your car or trailer in safety. The eight-strip Divine rod is nearer round than the six, and the eight produces somewhat superior features. The eight-strip may be had in 5 sizes from 8 to 10 feet in length and from $4\frac{1}{4}$ to 6 ounces in weight. They all have three lengths and an extra tip. The six-strip are identical in length and weight. If you prefer a dainty fly rod, there is nothing better than the Divine $7\frac{1}{2}$ foot, weighing but $2\frac{1}{2}$ ounces. These rods are also built in heavy sizes for bass and trout flies, both in eight- and six-strip, ranging from $9\frac{1}{2}$ to $10\frac{1}{2}$ feet in length and weighing from 7 to $8\frac{1}{2}$ ounces. Besides these there are two other varieties of special fly rods built.

The Divine rod in regular trout size, $9\frac{1}{2} \times 5\frac{3}{4}$, should be equipped with enamel E line. This makes an excellent all-round outfit for auto-camping and with it you need take no other tackle, for it handles practically any game fish that swims.

Your reel may be a simple single-action affair or an automatic. All things considered, the author has found the Martin automatic reel in its improved form with line protector ideal for

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use with the Divine trout rod, and for all purposes that the autocamper demands of fishing tackle. The new Martin reel weighs around 7 ounces and the brake handle is equipped with a hole in which your fish-hook may be inserted when carrying from place to place along the water. When carried in your pack this duralumin reel is most compact, light in weight, and keeps your line wound up on the drum all the time. It is not a bulky or heavy reel, as many automatics are, and is the best reel that you can find for everything but plug casting. For this purpose a casting reel will be necessary.

Leaders, flies, swivels, snelled hooks, B-B shot and heavier sinkers, artificial lures, and even porkrinds may make up the contents of your tackle box, depending a great deal on personal whims and the country you will fish. Flies on No. 10 and 12 hooks in the less flashy colors will be the most dependable, and some of the following will almost always be found in the fly fisherman's book: Brown and Gray Hackles, Professor, Coachman, Royal Coachman, Cowdung, White Miller, Black Gnat, the Dun in great varieties, Cahill, Queen of the Water, and so on. A fly case of aluminum, lined with cork and felt to absorb moisture, makes the most secure place to carry your flies.

About the merits of wooden plugs and buck-tail bugs and whatnots in the line of artificial lures, there is neither time nor place here to discuss. The author has found the Rush Tango as successful as any spinnerless plug or wobbler, and any of the South Bend wooden minnows

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with spinners are excellent. Likewise the spinners to which a strip of porkrind is attached are killers. So much depends on locality and local fish idiosyncrasies and the weather and the fisherman, that specific advice is not easy.

Many messes of sunnies and rockies and bullheads and the plebeians have graced our roadside dining table and were caught on a garden hackle, to be more specific, and angle worm. In early spring the trout will take worms more greedily than any other fish. Indeed, the trout is the notorious hog among all fishes. Of course, it is more sportsmanlike to take them on the fly and much prettier, but fishing for the autocamper resolves itself, not into an art, but a stern call of the stomach for fish upon the menu. Live minnows make excellent black bass bait, so do dobson or helagamites as these are called in some localities.

There are other articles in the line of hunting and fishing equipment that will be in your outfit anyhow. Rubber boots, the Duxbak fisherman's coat—recommended in the chapter on clothing as the best for autocamping—, fish basket—optional because you may not want to spare the room—, the pac boot for hunting, and various incidentals will be at hand because you are camping.

Not so many years ago we never thought about taking our hunting and fishing equipment along when we went on a touring trip, but that was before the growth of that institution in American life that began in the West and crept East—the avocation of autocamping.

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Soon after motor camping came into its own, the camper felt a thrill every time he passed through game and fish country in season, and it was not long before he listened to the call of the red gods along the road and took his hunting and fishing outfits. Personally they are as essential as my tent and bed.

Here is the list of addresses and officials from whom you may, by writing, obtain copies of game laws and information about shooting and fishing in the country you will autocamp:

Alabama: Commissioner Conservation, Montgomery.

Arizona: State Game Warden, Phoenix.

Arkansas: Secretary, Game and Fish Commission, Little Rock.

California: Executive Officer, Game and Fish Commission, Postal Telegraph Building, San Francisco.

Colorado: State Game and Fish Commission, Denver.

Connecticut: Secretary, Commission of Fisheries and Game, Hartford.

Canada: Alberta, Chief Game Guardian, Edmonton.

British Columbia, Secretary, Game Conservation board, Vancouver.

Manitoba: Chief Game Guardian, Winnipeg.

New Brunswick: Chief Game and Fire Warden, Fredericton.

Northwest Territories: Commissioner Parks, Ottawa.

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- Nova Scotia: Chief Game Commissioner, Halifax.
- Ontario: Superintendent Game and Fisheries, Toronto.
- Quebec: General Inspector Fisheries and Game, Quebec.
- Saskatchewan: Chief Game Guardian, Regina.
- Delaware: Chief Game Warden, Dover.
- District of Columbia: Superintendent Metropolitan Police, Washington.
- Florida: Secretary State, Tallahassee.
- Georgia: Game and Fish Commissioner, Atlanta.
- Idaho: Fish and Game Warden, Boise.
- Illinois: Chief Fish and Game Warden, Springfield.
- Indiana: Superintendent, Division Fisheries and Game, State House, Indianapolis.
- Iowa: State Fish and Game Warden, Lansing.
- Kansas: State Fish and Game Warden, Pratt.
- Kentucky: Executive Agent, Game and Fish Commission, Frankfort.
- Louisiana: Commissioner Conservation, Court Building, New Orleans.
- Maine: Commissioner Inland Fisheries and Game, State House, Augusta.
- Maryland: State Game Warden, Munsey Building, Baltimore.
- Massachusetts: Director, Division of Fisheries and Game, State House, Boston.
- Michigan: Commissioner Game, Fish, and Forest Fire Department, Lansing.

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- Minnesota: Game and Fish Commissioner, St. Paul.
- Mississippi: Secretary State, Jackson.
- Missouri: Game and Fish Commissioner, Jefferson City.
- Montana: State Game Warden, Helena.
- Nebraska: Chief Deputy, Game and Fish Commission, Lincoln.
- Nevada: State Fish and Game Warden, Carson City.
- New Hampshire: Fish and Game Commissioner, Sunapee.
- New Jersey: Secretary, Board Fish and Game Commissioners, Trenton.
- New Mexico: Game and Fish Warden, Santa Fé.
- New York: Secretary, Conservation Commission, Albany.
- North Carolina: Secretary State, Raleigh.
- North Dakota: Secretary, Game and Fish Board, Steele.
- Ohio: Chief Game Warden, Board Agriculture, Columbus.
- Oklahoma: State Game Warden, Oklahoma City.
- Oregon: State Game Warden, Portland.
- Pennsylvania: Secretary, Board Game Commissioners, Harrisburg.
- Rhode Island: Chairman, Commissioner Birds, Providence.
- South Carolina: Chief Game Warden, Columbia.
- South Dakota: State Game Warden, Pierre.
- Tennessee: State Game and Fish Warden, Nashville.

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Texas: State Game, Fish, and Oyster Commissioner, Austin.

Utah: Fish and Game Commissioner, Salt Lake City.

Vermont: Fish and Game Commissioner, Montpelier.

Virginia: Commissioner Inland Game and Fisheries, Richmond.

Washington: Chief Game Warden and State Fish Commissioner, Seattle; Chief Deputy Game Warden, Takima.

West Virginia: Forest, Game, and Fish Warden, Elkins.

Wisconsin: Secretary Conservation Commission, Madison.

Wyoming: State Game Warden, Cheyenne.

CHAPTER XVI

Packing Your Gasoline Burro

EXPERIENCE will early prove that a bigger problem for the autocamper than selecting equipment will be the feat of efficiently packing the outfit upon his gasoline burro's anatomy. This is, of course, making exception of the several trailers on the market purposely made for roadside hobnobbing, and the trailer's merits have been considered in another chapter. Indeed, when using the ordinary touring car for autocamping, or indeed any camping car, a big consideration for guiding your selection of equipment will be determined by the automobile you will use.

With the size and style of car in mind, remembering its power and its hill-climbing abilities and not forgetting its weaknesses if it has any, with all this in mind as your mariner's compass you are ready to sail the seas of equipment catalogues or sporting goods store counters. But this chapter must deal more with the car itself and its proper packing, while other chapters deal with the articles of equipment specifically.

In the first place it must be set down as the corner stone that nothing in the packed equipment carried on the car shall cramp any passenger for plenty of room. In case but two people autocamp in a touring car, the packing

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of the gasoline burro is a simple matter, for the roomy tonneau will open its mouth and swallow all your outfit in a single gulp. But with a family or several people the matter of packing calls for real ingenuity and careful planning.

The favorite place for excess baggage or camping equipment has come to be the running board of the car, not otherwise equipped for carrying trunks and bundles on carriers at front or in the rear. The luggage carrier of the folding type that clamps upon your running board has become so universally used for autocamping that it need only be mentioned as the best all-round means of keeping the equipment from sliding off the running board, which has sometimes not been possible when ropes or wires were used. This the writer sadly learned when the friction of a strong cable wire sawed it off at the point where it contacted with the vibrating fender of the automobile, and spilled in the roadway our pack basket and refrigerator basket. Luckily nothing was broken, so well had both been packed by my wife, and the refrigerator basket contained two quarts of cow's milk in ordinary milk bottles and a quart glass jar of modified milk for our six months' babe. The strapped and locked refrigerator basket and the poncho always tied on top of the pack basket saved us except for external damage to both baskets, which skidded along the macadam road a good twenty feet. Thus the author learned his luggage carrier lesson. The Stoll Luggage Carrier is especially built for the autocamper.

Some autocampers ask if there is any luggage

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carrier built that will protect the side of the car from chafing. For protecting the finish of the finest car, let me recommend the Loxtite Luggage Carrier. This will carry everything from a trunk to a golf bag, size and shape make no difference, and everything is automatically locked tightly in place so that it absolutely cannot move. Furthermore, this carrier is hardly noticeable on your car when not in use and takes up practically no space.

The Clark luggage carrier is a hinged rail with aluminum doorsteps for the uprights, hence, when folded down in everyday use, you simply



The Loxtite Luggage Carrier carries anything from a trunk to golf bags and does not mar the car

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have your luggage carrier disguised as spiffy aluminum car steps on your running board.

A very excellent plan for carrying equipment on the running board is the Autopack, which is a canvas pack three feet long, two feet high, and nine inches deep, the bottom resting on the running board and the top clamped upon the side of your car by felt padded hooks that will not mar the gloss of the varnish. This allows equipment of variable quantity and shape to be readily packed in a water-proof place. The Autopack may be readily removed from the running board and the duffle carried anywhere to the point where the contents will be utilized in roadside housekeeping.

Usually it will be necessary to pack both running boards, although this will be somewhat inconvenient for the passengers when entering the car. A good plan is to keep a high and long folding luggage carrier on the driver's side of the car and never open doors on this side, piling the carrier to capacity. The other running board may only be loaded when the passengers have entered the tonneau, and then only the rear door blocked shut. Somehow it's very easy when you are autocamping to learn the feat of climbing in and out over equipment, and even the women, likely wearing riding breeches or hunting skirt and bloomers, seem to delight in a chance to scramble about like squirrels on a picnic. Hence the much-loaded running board is not the obstacle that it may sound when you sit snugly at home reading about it.

Certain it is that you must not load one

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running board, or one side of the car, greatly in excess of the other. Generally the equipment piled high in the luggage carrier may be selected for counterbalancing a heavily packed basket or pack on the other side. On several trips my heavily loaded running board was balanced by the one adult in the rear seat keeping to the opposite side. Balance of load must be remembered when you are packing, and even then a broken spring may come to give you extra thrills, as it did the author recently when taking a well loaded outfit over a bad detour. But this was not the result of my autocamping equipment, for the whole net load of the car, including three adults and two children was carefully weighed before we started and found to be only seven hundred pounds, certainly not an over-load for a small car. But a broken rear spring sort of gives you your post-graduate course in autocamping and car packing, even if that load you are sure was not the cause of the mishap, and when you wiggle out of a backwoods and garageless country with a "crowbar" and an inch iron pipe substituting for the spring, said substitution being the handiwork of the autocamper himself, then indeed you have won a higher degree in the university of roadside camping.

Personally I have never camped in the last seven years without taking my pack basket, in spite of the protests of the women folks who maintain that when they want anything it is always at the bottom of the basket. But in a sense this is true of any container that you

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may name that is efficient for autocamping. The typical pack basket is a product of the Adirondack Mountains where the sight of the basket is more common than a canoe, even in this much-watered country. Pack baskets are used to carry groceries in the Adirondacks, by the lumberjacks (indeed the "lumberjack's suitcase" is the North Country name for the pack basket), and by autocampers who are flavored with Adirondack habits.

A first-class pack basket is made by Indians from black ash splints and fitted with a leather harness. This harness is not essential for autocamping, although it does help somewhat in securing the basket to the car, and if you need to carry supplies from a little distance to your roadside camp, then the pack basket can do it as well or better than any other pack or means of carrying burdens on the human frame. Of course, the essential purpose of the pack basket is to tote loads into the backwoods carried upon the back, the straps holding the basket upon the shoulders and resting against the length of your back. The pack basket is very easily secured on the running board of the car with a luggage carrier, and for short trips may be secured quickly and safely with a single wire or small rope. In it you may pack fishing and hunting equipment, cooking utensils, canned or boxed bulk food, extra clothing, flash lamps, candles, and indeed it makes the ideal "catch-all" for everything you can't put somewhere else.

A pack basket that fits the autocamper's needs in almost ideal shape is the brown water-

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proof canvas-covered basket made by the Stonebridge concern. Naturally an uncovered pack basket, even with poncho tied over it, is not dust-proof, mud-proof, or absolutely water-proof. The Stonebridge covered basket is all three. Pack baskets come in various sizes and only the larger will be best for autocamping, the one used by the author being about 24 inches high, 12 inches thick, and 18 inches wide, slightly smaller at the top than at the bottom, giving stability, and being the typical shape of the true Adirondack basket. Do not trust a basket made in any other shape, especially with straight sides and the top as large as, or larger than, the base. The standard pack basket holds about one bushel, and after you have practiced packing one a few times you may put into it seemingly several bushels of autocamping odds-and-ends.

Next after the pack basket for autocamping utility the various cylindrical and rectangular and odd shaped packs may be considered, although there are many who swear by these and scoff at the pack basket, mainly those who have never personally met and fallen in love with the Adirondack pack basket in its natural habitat. The Gold Medal pack, known as a Luggage Carrier, is a pair of canvas barrels telescoping together, each half being cylindrical in shape and 36 inches long by 18 inches in diameter. It is made from extremely heavy duck canvas and equipped with strong carrying handles at each end as well as a ring and rope lacing system for holding the two parts together. This Luggage

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Carrier may be easily carried on the running board and affords room for bedding and toilet articles as well as the "hundred and one" articles. Of course when you carry a bed that rolls up, your bedding may be carried inside this bundle.

Other excellent packs are the regular Ditty Bags of the U. S. Navy, the Appalachian Pack (rectangular in shape and carried by two straps like a pack basket), the Security Duffle Bag (very much like the Gold Medal but without the telescoping capacity), Food Bags made by the Stonebridge people, Haversacks, Ruck Sacks, Nessmuck Packs, and many others that may be adopted for motor camping. There are several excellent packs made purposely for the tourist and the A. B. C. Tourist Bag is excellent in any size, ranging from 10 inches to 18 inches in diameter, 24 inches to 36 inches in length, and made from a chemically treated double filled light-weight fabric that will not allow moisture to pass. These bags may be had with endless strap handles, carrying the load balanced, as well as a handle on the bottom.

The Burch Duplex folding canvas-covered baskets are excellent autocamping luggage carriers, being water-proof so that in emergency water may be carried in them or even food packed in ice. The better autocamping size is 18 inches long by 11 inches wide, and the same in depth. There is likewise a Burch Duffle Bag, something on the same plan as the Ditty Bag.

Many build their own running board carriers of wood, covering an ordinary dry goods box with

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rubberized cloth, and all kinds of unique shapes and sizes are touted as the best by the builders. On one trip the author tried a homemade affair and swore never again to indulge, for if you get them water-proof they are pretty likely not to be dust- and sand-proof, besides a black box on the running board does not lend itself to being readily taken off and used for other purposes, as do almost any kind of baskets, packs, and luggage carriers purposely made for your convenience.

In the East you will see the suitcase as a prominent part of the autocamping equipment, but Eastern camping is about the only kind where this carrier is permissible. For clothing, especially changes and children's outfits and the extras, there is no better place than the suitcase, and if by chance you should want to "dress up" at some place, the suitcase is about your best valet. In the West you will not see the suitcase behind the picket fence of the luggage carrier on the running boards, because there nobody thinks of dressing up. In the East folks are still a little shy sometimes about the propriety of appearing in outdoor togs, but this is most rapidly passing, and the natty outdoor clothing now made gives the autocamper and his family a most fascinating garment, both from the standpoint of utility and appearance. The author has on several trips carried two suitcases, and once even three, the small children in the family being the alibi.

On the subject of containers for equipment should be considered the water carrier for the autocamper. In the East the streams are often

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polluted by sewage, although the hundreds and thousands of backwoods brooks are not (but those back country hotels may break that rule). In the West, water is a real problem from the alkali and other desert water hazzards to foul valley water in general in certain sections. Water in California is mostly good drinking spring water, but in the valleys at some places it is certainly painful. The water container in some form ought to be a part of the motor camper's outfit. It is an imperative part of the equipment for the Western autocamper.

There are several water bags and their construction is so simple that space need not be given. A new style of bag allows for space to put in butter and milk or perishable food and keep it preserved not only by the coldness of the water, which isn't cold on a desert road, but more from evaporation, one of the best means of refrigeration. There are several canteens and canvas-covered jugs and bottles utilized for water-carrying.

The ideal equipment for the autocamper is known as the Auxiliary Tank, made purposely for the tourist. It carries on the running board a reserve of gasoline, oil, and water. The gasoline autocan is painted red and stenciled "Gasoline," the oil section is blue, and the water unit is cloth-covered. The three parts are shaped like a cylindrical can cut lengthwise a little to one side of the diameter, and this flat surface, really the bottom, fits upon the running board. The Auxiliary Tank is one complete unit as far as attachment to the car is concerned, and

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the danger of losing caps is eliminated by a top bar strapped securely in place.

There are several folding water buckets, mostly made of canvas, which will take little space for packing and will carry your spring water to camp or fill the radiator. The Gold Medal people make several styles of folding buckets, pails, and basins. There is even a folding wash stand and bathtub in the Folding Family. The Burch people make folding Duplex pails and basins, and there are several others. Indeed the folding equipment for the autocamper runs to a regular epidemic, and strange as the uninitiated may believe, there is not a single "luxury" in the collapsible line after you have once autocamped and tried them.

Indeed, the great avocation of autocamping is mainly made possible by folding beds and stoves and tents and buckets and baskets and the rest. Your roadside housekeeping is done with a whole Folding Family, from cooking utensils to tent-bed and baby motor crib. The efficiency of packing your outfit on the car will depend in a large degree upon the wise selection of folding outfits for economy of space and light weight.

After the available space on the running boards has been monopolized with packed equipment, you simply have to put the remainder inside or on top of the car. On top of the car is not a joke, and in the case of a sedan or enclosed car a rail and luggage carrier may carry your duffle. At least one 6,000-mile autocamping trip through the West was taken by a veteran

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autocamper with part of his outfit on the upper deck of a sedan.

The space most used, of course, will be the tonneau and that portion of the rear seat not occupied. If you have small children you may take up part of this space with a motor crib, and the Gordon crib has proven most successful with our youngster, both from the standpoint of safety and comfort and also from the vantage of a minimum of space required to swing it so that the babe is held on resilient spring tension just as in a baby buggy on the sidewalk. It has seemed to me that hammocks swung from the car top have anchorage too far from the fulcrum of the throw leverage and tend to jounce more than the Gordon.

In the tonneau you may pack some bundle in place of the foot rail. This rail is always removed from the author's small car when auto-camping and in its place is put a Gold Medal folded double cot bed or the folded lunch table. Often folded furniture that is not placed on the running board, as well as tents and beds in their bags, may be stood on end in the tonneau and so take up less floor space, which is at a premium. Sometimes some part of the outfit may be secured to the top of the car, attached to the frame, but it must be something light and compact. Folded wood stoves or gasoline stoves may be set on the floor of the tonneau between the feet of the passengers and a thin package may be placed against the rear seat and where it will be behind the feet and legs of the passengers. On several trips my rolled tent and air bed have

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carried out on the front of the car, one on each side, wedged in between the front fender and the hood. A car thus loaded does not put in a very pleasing appearance when you go through a town and looks loaded to the ears, but the truth is that a well distributed outside load is no more strain to the automobile and gives all the room inside to the passengers.

Under the rear seat is another favorite cavity that is filled to capacity. The minimum of tools and accessories for the car should be packed conveniently in one end and none of the camping equipment put on top. Under the rear seat may be carried the tent poles and pins, folded wood stove or gasoline stove, or tank for acetylene stove and lamp (such as the Prest-O-Lite), or folded chairs, table, water buckets, old clothing for emergency, first-aid kit, etc. Extra blankets may be folded and put upon the car seat. Grids, broilers, reflector baker stoves, flat folding simple wood stoves, and the like, may be placed under the floor rug of the car. The camera ought to be carried in its case or bag in the seat between passengers where it may be instantly ready for use. The Game Getter in game country should be in a handy place likewise. The camp ax and fishing tackle do not need to be placed in a position for instant use, but ought not to be packed "too deep." The pockets of the car will hold a surprising amount of equipment; the big plumber's candles, drinking cups, flash lamps, small tools and utensils, cap and sun or sand goggles, maps, gloves, compass, hunting knife, and a dozen others.

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Then there are carriers that may be placed on the rear or even over the front fender of the car, upon which everything from car bed and tent-beds, to steamer trunks, suitcases, pack bags and baskets, and the heavier articles, may be carried.

Certain it is that every outfit ought to be packed in your mind before you start—several days before you start. This will depend on the number in the party. Take two cars or less folks rather than “bite off more than you can chew,” and perhaps spoil the flavor of autocamping by bad packing and congested quarters.

A whole chapter might be written on the care of the car and its operation, but this is essentially not one of the primary problems of autocamping, because likely ninety-nine out of every ninety-nine autocampers have become accustomed to the automobile before the autocamping adventure. There is one thing that ought to be written red in the Autocamper's Decalogue, “Make Sure Your Car Is In Perfect Condition Before You Start.”

One might think from reading this one chapter alone that the autocamper went out loaded like a load of new hay. But this is not common. There are so many compact outfits on the market today that fold into such compact space, that often everything may be carried on just one running board and under the rear seat. With a small car the problem is naturally different and there are many ways and means of throwing the diamond hitch over your gasoline burro and cinching it into place to stay with you through the bad lands and the buttes and the desert's flour sand, until you reach your destination.

CHAPTER XVII

The Ethics of Autocamping and Road Lore

IF THERE is any message in this book that I would sear with words deeply grooved into the plastic record of the brain so that it could never be forgotten, it would be this: *Autocamp upon others as you would have others autocamp upon you.* This ought to be the Golden Rule—or the Gasoline Rule—of motor camping.

The ethics of autocamping are simply little rules of proper motoring conduct that must be observed, or else autocamping is bound to be speedily hedged in with restrictions, both judicial and prejudicial. To thousands these words of warning will fall on heedless ears. Is not the country open wide to the roadside camper? Are there not public parks and camping grounds? Do not automobile clubs and guide-book makers and map compilers and highway associations stretch out beckoning hands and bid us welcome? Do not farmers camp us in their yards and fields? Do not school yards and state lands and National Forests and Parks bid us enjoy their hospitality?

They do. This today is because autocamping is just an infant and many of the organizations that encourage this avocation are the wet-

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nurse of the infant. But more than that, everybody loves to fondle a budding youngster in all his newness, and autocamping today is just that budding youngster.

Autocamping puts responsibility upon you. The responsibility to leave your camping site in as good condition as you found it, or better. To see that your presence in a country or community does not constitute a public nuisance. To see that the hospitality extended is not trampled under foot.

One of the biggest complaints brought to the door of the roadside camper for settlement is the old song that starts: *He Litters Up The Landscape*. It is most important to see that about camp no papers and rubbish collect. Burn all that flames will lick up of the débris and bury the remainder. Last summer I found a beautiful natural camping site on state land where previous camping parties had rendered it uncampable by poor toilet arrangements. It was a shame and a crime.

As time goes on our legislatures are going to limit autocamping if we cannot stop the careless camper. In the backwoods men are either woodsmen or dubs. And in autocamping folks may be either autocampers or grubs. There is nobody to stop the fellow that can't stand the lack of conventional restraint when he wants to become a Vandal, and nowhere will his mettle and his character be put to the test as when motor camping far from home on a camp site possessed with very little effort, because of either private generosity or quasi-public provision's

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But nine out of ten cases that have come to my attention were pure thoughtlessness and plain carelessness. When a break of ethical laws is not willful and vicious there is always room for hope. And autocamping leaves a great big roomy auditorium of hopefulness. Suppose we sign a pledge or make a written resolve or tie a string about our fingers—anything to make us remember to be careful, considerate, and to autocamp upon the lands of others as we would have others camp on our own land.

Let us remember not to locate camps and to leave tents flapping so that horses passing will be frightened. Camping grounds should be cleaned of papers, tin cans, bottles, cast-off clothing, and all débris before leaving. When not in a locality where pits or débris receptacles are available, bury what will not burn. Have a toilet tent—purposely made by several builders—or some arrangement for this that will not pollute waters or taint the air after you are miles away and another party camps in the same place. Fires should not be kindled near trees, dead wood, moss, dry leaves, forest mold, but in an adequate camp stove or on bare ground or rocks. Your tent stoves should be equipped with spark arresters. Special care is necessary to prevent lighted cigars, cigarettes, and matches from being thrown from your moving car, or about your camp ground, where they will ignite grass, leaves, or anything that may be combustible.

So much depends on the careful conduct of the autocamper that the next few years are sure to decide the status of the open road camper.

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It will be like the early days of the automobile. First people were amused, then interested, then tolerant, then angry, and then hedged motor vehicles about with iron-clad laws. The same may be true of autocamping. We are just getting through the amused stage with flying colors and people are fired with interest. This enthusiasm must not run amuck!

To date I have never once been refused permission to camp on a farmer's property, but that may have been luck or the ability of my wife to instinctively select the upstanding, progressive, liberal-minded ruralist. But I believe it was because the farmer welcomes the motor camper, and since he keeps to the highway he is not suspicious of the autocamper. Autocamping is a novelty to the farmer and it is fascinating. I know several farmers who have become inveterate autocampers. Recently a friend wished to camp near a farm house in Canada and discovered that the whole countryside spoke French. That night he camped by urgent invitation in the very dooryard of a French-Canadian farmer, the invitation to camp having all been given in the sign language.

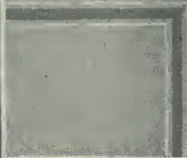
My favorite camp site, when not in the country of the public motor camping park, is the farm. Camp near a farm and you are situated for obtaining fresh cow's milk, and butter, and berries, and fresh fruit, and vegetables. You are at the base of supplies of this nation. For a pittance you fill up your refrigerator basket from day to day with the fruit of the earth. In the East this sort of autocamp site is most popular.

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When no farm or public autocamping ground presents, you may housekeep upon some school yard. Generally this is fairly near a farm house. It is a good plan to always ask at a nearby farm dwelling where the school trustee lives, and if near, to get his permission. Usually there are toilet facilities handy near the school building or in it, and last season I found a great many school houses unlocked and equipped with excellent inside toilets. Such comfort stations are public and will be thrown open to us auto-campers as long as we can merit the privilege. In several school yard camp sites we have joined with others to form a small camp city for several days.

Akin to the school yard, which in a sense belongs to the public, is the state land and national holdings throughout the length and latitude of our country. In the East there are the parks of the Adirondacks, Catskills, and indeed about every mountain range has state-owned lands, some of them national. In the West there are the seventeen National Parks and the National Forests open to motor camping for the day or the season. Usually you are at liberty to camp on public land so long as you do not put up a permanent structure or use anything for fuel but dead timber.

By far the most unique camp site is the autocamping park set aside purposely by city, town, or village. Municipal parks for camping started in the West and, defying the ancient law of civilization movements, crept slowly eastward. Overland Park, Denver, Colorado, was the



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1 On the Montana Route of National Parks Road
2 Overland Park, Denver, Colorado
3 Southern California Public Camp Ground
4 Public Camping Park, Spokane, Washington

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progenitor of the autocamping park. The city of Denver purchased 160 acres of land along the Platte river for this purpose in 1920. Over half of this area is wooded with maples, cottonwoods, and other trees. There is a large three-story club house located in the park, with twenty-four rooms, a concessionaire being in charge of all departments which supply commercial articles for autocampers. There is in this building a complete grocery store and meat market, a kitchen, grill, and lunch counter, steam table from which foods are dispensed, billiard room, barber shop, men's showers and comfort stations, women's showers and comfort stations, laundry room with eight tubs, lounging room, and lockers. The city engineers have surveyed 800 lots in the park, each 25x35 feet, and located so that no camper is more than 150 feet from a city water hydrant. The autocamp is lighted by electricity from the city lines. Several comfort stations are located about the park. There is a garage building and automobile repair shop and a motion picture theater, as well as a filling station and accessory store near the entrance to Overland Park.

Spokane, Washington, has another typical motor camping park, offering to the autocamper free shade, free water, free fuel, cooking facilities, laundry facilities, bathing facilities; and thoroughly policed and protected. This park entertains about as many as Overland at Denver, extending hospitality each year to 10,000 cars with four or five people to the car, and each car averaging two days' stay. In

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some parks the camper remains all through the season, taking side trips frequently into scenic country, with which our West is blessed like a fairyland of wonders. There are hundreds of autocamping parks fully equipped, like Denver and Spokane, and there are thousands of other parks in the Northwest, West, and Southwest, as well as the Middle West, and the East, where an autocamping site is offered with only part of the facilities. Frequently there is the lack of bathing and laundry facilities. Generally there are water, cooking facilities, and sometimes fuel. Almost every autocamping park, and many highways, East and West, are equipped with fireplaces and stoves for the autocamper. Besides municipal parks specially furnished for autocamping, there are today accommodations by the hundreds in our National Forests of the West, as well as the Pisgah National Forest, North Carolina, and the White Mountain National Forest, New Hampshire. Furthermore, three states at least have state parks with places set aside for the camping public—Pennsylvania, Minnesota, and Wisconsin. Then almost every state in the Union has state lands, generally in watered and in mountain regions that may be freely improvised for autocamping.

Detailed and specific information may be obtained by writing various organizations. The United States Forestry Service, Information Department, Washington, D. C., will tell you about any of the National Parks and Forests. The Tourist and Publicity Bureau, 623 Seventeenth Street, Denver, Colorado, will inform you

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about all the country and camping facilities radiating from Colorado. The great Northwest playground will be opened to you by communicating with the National Parks Highway Association, Spokane, Washington. The sunny Southwest is an open book to the Automobile Club of Southern California, 1344 South Figueroa Street, Los Angeles, California. Any state information may be secured by writing the conservation commission or game wardens listed at the end of my chapter on hunting and fishing equipment. And the roads are full of automobile clubs and travel associations ready to assist. The public libraries in our larger cities, our map makers, and road directory compilers, and outdoor magazines, and tourist booklets—there are thousands of these ready to give you information for the asking. Many Canadian cities now have motor camping parks, and this country offers boundless opportunities for roadside housekeeping.

The average autocamper will be content with a trip over the roads of his native country. But more and more frequently he will strike cross-continent, or go South in winter, or else North in summer for his roadside vacation avocation. The Lincoln Highway from New York to San Francisco, laid out in 1913, is the shortest route from coast to coast, making the distance in 3,305 miles, and if lacking in scenic beauty what some of the more northern or southern routes boast, it makes up for this in ease of road grades and in shorter distance. The Lincoln Way goes from New York to Pittsburgh,

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skirts Chicago, goes through Omaha, Cheyenne, Salt Lake City, and ends at San Francisco. Through the high passes of the Sierras near Lake Tahoe the highway is closed several months each year by snow, however this will be at a season when autocamping is hibernating anyhow, or easy detours may be found.

The northern cross-continent highways are the Yellowstone Trail and the National Parks Highway, which coincide in many places and frequently cross. The Yellowstone boasts of a highway from Plymouth Rock to far Puget Sound, although the real highway starts at Chicago, the eastern end following roads already constructed. Of course, the trail itself does extend from coast to coast. Starting at Plymouth, Massachusetts, the Yellowstone Trail goes through Boston and Springfield, into New York State from Albany to Buffalo, Cleveland (Ohio), Gary (Indiana), Chicago, on to Minneapolis and St. Paul, Aberdeen (South Dakota), on through Baker (Montana), Coeur d'Arlene (Idaho), to Spokane and Seattle. The trail does not go through the Yellowstone National Park, but offers side spurs to this region, as well as to Glacier and Rainier Parks and many other interesting places.

The southern transcontinental highway is the National Old Trails Road, from Washington, D. C., to Kansas City and St. Louis, and then through the historic Southwest to Los Angeles. This route is best in the fall of the year.

People who live in sections where hard-surfaced roads are at hand to take the auto-

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camper from one large city to another will have the impression that any of the cross-continent highways are the same. This is not true even of the Lincoln Highway itself, and indeed west of the Mississippi hard surface roads like those of the East are very rare. As time goes on this will be improved as rapidly as possible. The roads along the highways that are the main connecting route of Atlantic and Pacific are kept in the best possible state of repair, with hard surfacing and paving going on as rapidly as possible. Some states of the West have put fine concrete roads through their limits along the main highways. Others will eventually.

Specific information should be obtained from highway headquarters. The Yellowstone Trail Association is addressed at Minneapolis, Minnesota, 337 Andrus Building. The Lincoln Highway Association is reached at Detroit, Michigan. The National Old Trails Road at New York City. The National Parks Highway Association at Spokane, Washington. The Automobile Club of Southern California, Los Angeles, California, will inform of almost all road conditions clear across the continent, and especially of desert travel.

All highway associations will supply you with complete road guides and the highways are thoroughly posted, the side trips getting the autocamper and tourist most frequently into trouble. The Blue Books, numbering 13 volumes, are rather too bulky for use in a complete span of the continent; but some autocampers swear by their Blue Book Bibles.

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The T I B Route Books are excellent for the Middle West. Almost every city has a Tourist Bureau, and all of them a Chamber of Commerce that will issue highway guides. The United States Geologic maps are gigantic "strip maps," likely too detailed for average use; although we have personally selected specific rectangles of these topographic maps for tours and found them most excellent. The "strip map" follows the Geologic map idea of giving much detail; however it gives this information only along the highway you are covering, and you are lost if you get off this main highway with your "strip map." Practically all the leading outdoor magazines are ready to supply you with highway information, some of them devoting departments to the new avocation of autocamping.

Crossing the desert trails is mainly a problem of water, food, and fuel; and a problem, indeed, but one that is being solved more easily year by year. The Automobile Club of Southern California has already been mentioned as an authority on desert travel and has done pioneer work in posting and making the desert safe for autocamping and touring. The desert is not, as the uninitiated suppose, a barren place of monotony without verdure. The sandy stretches teem with a plant life, a flora peculiar to high temperature and arid conditions.

It is always advisable to cross the desert highways in parties of two or more cars, each well stocked with an over-supply of grub, fuel, and water. The water container, little considered

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in the East, is here found to be more important than the food basket in the land of sun, sand, and solitude. Many of the railroads have watering stations, and tourists may replenish at such places. Then there are water holes, wells, and springs. Frequently "sinks" have saved human lives from thirst, being merely natural reservoirs in the rock that have collected and kept rain water. There is a water-supplying plant also, the barrel cactus, each plant yielding about a gallon of rather sweetish water, and having many times been the lifesaver of the traveler. Growing tules and bull-rushes always indicate the presence of water, and so does a tangle of dense arrowhead growing six or eight feet high.

In crossing desert country you must provide two gallons of water per day for each person and a proportionate amount for the car. Naturally evaporation is very rapid and the dry air will not only rob your radiator, but also steal lubricating moisture from the automobile springs especially, and in dry desert country your car will roll along sounding like a whole bevy of squeaking mice or singing birds. Extra gasoline ought also to be carried, because you will use a great deal more than you think. The millions of chuck holes will caution you to drive slowly and in intermediate frequently. Desert water will generally need boiling to make it fit for drinking. Or one Halazone tablet added to each quart will purify it. Alkaline water is found in desert locations where water has acted as a solvent to mineral deposits. If no other drink-

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ing water is possible, this may be made drinkable safely by one teaspoonful of muriatic (hydrochloric) acid added to each gallon of water.

For safe desert travel one must have plenty of water containers, must carry a compass, and must know his country—location of fuel and water stations—must have a big reserve tank of gasoline and oil, and should start with either another who is familiar with desert road travel, or else be well informed by a competent organization. And when a sand storm prevails, camp until it is willing to allow you to go on. The best camp ground is at the base of a mountain where one can get into the canyons for water and as a cool retreat, and shelter from high winds and sand storms. Actually camping within the canyon may result in disaster from torrents sweeping down the basin. A campfire of wood is a luxury on the desert, and the gasoline or compressed acetylene gas stove comes into its own in desert travel. It goes without mention that every part of the outfit must be carried in as sand-proof a covering or container as possible. Sand varies from coarse grained material to fine flour sand that is a plaything of the winds and more persistent in getting into every nook and neck of the outfit than an army of insects.

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